

THE TIMES

CEDAR VALLEY

BENTON COUNTY'S COLORFUL DAILY NEWSPAPER

Soil conservation is...

Guest comment

The land has made nation strong

By ROBERT RAY
Governor of Iowa

In this bicentennial year, we can pause and reflect on our accomplishments in America which are unparalleled by any other nation. Those accomplishments, in great part, have been made because of the initiative and creativity of the hard-working citizens of this country.

There is another important reason for our success — our natural resources. In Iowa, we live, walk, drive and grow food on one of our nation's most valuable natural resources — the soil.

Take a look at the facts. Agriculture is our leading export industry, with 12 billion in export sales a year, or 20 per cent of all our exports. Each of our farmers feeds himself and 55 other Americans. As a group, U.S. farmers spent \$75.5 billion last year which goes into our economy for the benefit of all.

These facts are important to us in Iowa, where 95 per cent of our land is in agriculture and where our economy is heavily oriented toward agriculture.

Unfortunately, the unique combination of soil and climate that make Iowa ideal for crop production also makes our state one with a

high potential for soil erosion. We have seen some serious erosion of top quality farmland. Conservation officials report that less than half of our land is properly protected from the menace of soil erosion.

The need for good conservation practices in urban and industrial areas that support our agricultural economy is equally essential. And proper conservation measures will be needed to maintain the quality of life we enjoy for future generations.

We have always recognized the need to conserve and protect valuable soil. Iowa is the only state in the union that provides its own funds for cost sharing with landowners to install conservation practices.

As we observe Soil and Water Conservation Week September 12-19, I would like to join thousands of others in paying tribute to the conservation minded farmers of Iowa, and to those citizens rural and urban alike, who give of their time and effort to make our programs work.

However, we must not dwell on our past accomplishments, but on the task that lies before us. Working together we can increase the productivity of our resource base and at the same time make Iowa an even better place in which to live, work, and play.

An issue of great concern

Soil conservation affects us all, something Iowa Gov. Robert Ray realizes. He discusses the conservation practices followed in a terraced cornfield in Polk County with owner Carl Bauer, tenant Norman Pearson and William Mills, Polk soil conservationist. Protecting our soil resources must involve the working of governments — local, state and national.



Benton production lost to erosion

TIMESNEWS—More than 16 per cent of Benton County's farmland has been severely damaged by erosion since 1850.

This means that land productivity has been reduced at least 10 bushel per acre on this acreage.

Benton County Soil Conservationist Floyd Peters says the completion of the Benton Soil Survey has given a tool for telling how badly Benton land has suffered from erosion. With the survey, Peters figures there are 60,500 acres of Benton County's 362,000 acres of cropland that has been severely damaged by erosion.

A figure developed by agronomists in Iowa translates that severe erosion into a loss of about 10 bushels per acre in grain yields during a normal year. This year, the difference will be much more exaggerated.

"If corn selling for \$2.50 per bushel, this is a \$25 loss per acre in gross income. With costs and income as close as they are, this could mean a net loss in most years," Peters says.

About 150,000 acres in Benton County has a slope of five per cent or greater, and is subject to severe sheet erosion. Forty per cent of Benton's sloping land has already been severely damaged and another 90,000 acres is in danger of being damaged unless conservation practices are installed at a much more rapid rate than they have been in the past 20 years, Peters said.

Until the end of World War I, most farmers used a rotation mixing oats and hay with row crops. This practice slowed soil loss. Now, most farmers are using a corn-soybean rotation. The danger of erosion has tripled, Peters said.

Efforts are being made in Benton County to protect the soil, but the rate of accomplishment of significant control is slow when compared to the need. Peters said the Benton Conservation Needs Reports shows the county needs erosion control practices on 220,000 acres of the 362,000 acres of cropland. Much of this acreage benefits from incorporating conservation practices in the normal farming program.

However, 70,000 acres are sloping. Class II land in bad need of such permanent erosion controls as terracing if they are to be included in row crop acreages.

Last year, 79,000 feet of terraces were installed in Benton County, protecting 300 acres, Peters said.

The conservationist says examples of the importance of proper conservation practices are everywhere this year. Drought conditions have intensified the difference in productivity of protected and eroded soils. Peters says where the agronomists figure the yield loss might be 10 bushels per acre, this year the loss could be as much as 50-60 bushels of corn per acre. In many fields, he estimates yields from areas with good topsoil will be about 100 bushels per acre. In eroded areas in the same field, the yield could dip as low as 40-50 bushels per acre. With the lack of rain this summer, Peters says it is the people who take care of the soil who will have the yields.

The soil has served each of us a long time. Continued on page 11

Makes the difference

Again this year, drought conditions have taken a heavy toll on crops. But where the soil is protected and maintained, yields are significantly better. See page 11 for a better look.



Trees have a place

TIMESNEWS—"I don't want Iowa to look like Nebraska or South Dakota," says Bob Hibbs, district forester with the Iowa Conservation Commission.

Hibbs is a man who knows his trees, and knows that there is more and more of Iowa that looks like our neighbors to the west — barren, treeless plains.

He would like to see farmers take a more active role in returning trees to the Iowa landscape.

The number of acres devoted to forest in Benton County and Iowa has dwindled, the result of what land owners see as competition from more lucrative land uses.

Hibbs feels this trend has some real disadvantages that need to be considered. He also feels Iowa landowners — and particularly farmers — need to better understand what a forest is, the type of resource it represents, how to manage it, and the role forests can play in a total farming operation.

Hibbs says he doesn't like to make statements, but he said in recent years he has found the people who are managing woodlands best are not the people using the soil for their livelihoods. He said he's finding more and more affluent urban people who buy timber for use as a rural

homesite, or just as a protected area for their personal use. This is good, he said, to the extent these areas are protected. But often, such management does not use the resource to its fullest potential, such as for commercial timber production.

(Also, Hibbs says he found that governments do a better job of managing forest land than private owners because government bodies frequently do nothing with timber they buy to protect. In many ways, this is a very workable system of forestry management.)

To Hibbs and other conservationists, — such as Floyd Peters, soil conservationist in Benton County — a forest is a stand of trees on land that has been devoted entirely to one thing growing trees.

This is the best use for certain land — generally the steeper, more erosion-prone and least accessible areas, or those areas along rivers and streams.

Many of these former forest uplands and lowlands have been and are continuing to be farmed. However, the typical forest soil does not make a good crop soil. The organic matter in a forest soil is concentrated in the "litter layer" that covers the ground, Hibbs says.

Continued on page 12

Benton soil conservation speech contest is Oct. 14

TIMESNEWS — "Soil Conservation — Lifeline to Continued Prosperity" will be the topic for the 1976 soil conservation speech contest, sponsored by the Benton County Soil Conservation District.

The contest is open to all junior and senior high school students (as well as 1976 high school graduates) living in Benton County. The speech contest will be at 8 p.m. Oct. 14 in the Soil Conservation District office. Prizes will be offered.

Winners of the local contest will advance to the regional competition, which will be in November. Regional contest prizes will consist of \$30, \$20, and \$15 for first, second, and third placings respectively. One \$10 Merit Award recipient per region may be selected at the discretion of the judges. An eligible recipient is limited to an outstanding contestant who has not entered the contest by the time of the regional contest.

The state contest will be held Nov. 29, at the annual conference for soil conservation district commissioners in Des Moines. The first place winner in the state contest will receive a \$300 college scholarship and \$110 in cash. The second and third place awards in the state contest will consist of \$85 and \$60 in cash respectively.

Anyone interested in entering the 1976 Soil Conservation Speech Contest may obtain contest information from the Benton County Soil Conservation District office in Vinton (472-2161), or the nearest vocational agriculture departments.

Contest entry deadline is October 7th. The sponsors encourage all youths, whether rural or urban, to enter this contest.

Putting land in the use that best suits it

Iowa Conservation Commission Forester Bob Hibbs feels properly maintained woodlands can play a vital role in Iowa's conservation picture. Certain land is best suited for forests, he believes. Also, a woods is never a pasture. For more, see pages 12 and 13.



Conservation practices give wildlife a home

DYSART — Many soil and water conservation practices also provide other benefits — homes for wildlife.

Such practices can include such simple steps as conservation tillage, or can be as well developed as the wildlife area on the Melvin "Bill" Raub farm east of Dysart. Raub has about 10 of the 320 acres on his home farm that is not tilled. It is given over to a pond, drainage creek, tree plantings and timber stand for wildlife cover, recreation and erosion control.

Bill said the project started about 10 years ago with the planting of pine trees on rugged ground on the farm. That initial area has grown into a seven-acre tract that

provides the Raub family with recreation and leisure, as well as giving son Scott first-hand experience in wildlife management — the field of study he is pursuing at Iowa State University. (He's a sophomore this year, majoring in fisheries and wildlife biology.)

Bill says much of the wildlife development has been Scott's doing. Scott has planted trees and shrubs in the area below the pond dam. He is also experimenting with stocking the area with quail. He has purchased some quail, and is also experimenting with raising quail from eggs.

Continued on page 15

A way of life

Some peoples lives just normally include room for other living creatures. Melvin "Bill" Raub and his family are those type of people. For more on the home they provide for wildlife, see page 15.



Dollar is winning influence in land use decisions

EDITOR'S NOTE: The following is being reprinted from Farmland News. Although the names and places are removed from Benton County, the conditions that led to the situation described exist here. Often it is easier to see what is happening to us by looking at what has happened to others. Changing demands on the land are creating a variety of new pressures. Who has the right to say how land will be used? There are many things involved that need to be examined and considered carefully by each of us.

By JILL SUSAN ROWE
Assistant Editor, Farmland News
Buying wild, undeveloped land and leaving it that way can be more expensive than developing it.
Many of this nation's tax laws play into the hands of developers by taxing land the means of farmers or nature-lovers. Land near cities, where wide open spaces and verdant woods are already scarce, is under the greatest tax pressure. Some states are proposing new

laws to encourage the preservation of undeveloped land.

Carol and Frank Ise paid \$60,000 for 40 acres of tranquility and beauty last year. They fear that taxes on the land, less than an hour from downtown Kansas City, may rise so high that they can't afford to keep it.

"We're not living on the land, not making money off of it and we can't afford high taxes on it," says Carol Ise, suburban housewife and environmentalist.

The Ises are among the mostly young and mostly well-to-do people who are buying land simply to leave it as it is. "Most people see land strictly in dollars and cents," says Mrs. Ise. "They don't see the aesthetics of it."

Even people who do appreciate the aesthetics of undeveloped land usually lack the dollars and cents to buy it and preserve it.

Though the nearest house is a mile away now, the Ise land will probably become an oasis of tangled woods and free-running

stream in the midst of manicured lawns and 2-car garages. Already acreage around their land is dotted with signs announcing upcoming housing developments. 200 acres across the road have been bought by a developer.

The encroachment of Kansas City suburbs disturbs the Ises. Not only will the land lose its flavor, but pressure for annexation into the Johnson County (Kansas) town of Olathe, a mile away, will grow. Homeowners will want the water, sewer and fire protection that annexation helps provide. For them, with their half-acre lots, the big tax jump sure to accompany annexation will be a worthwhile expense. For the Ises, whose 40 acres hasn't and won't be used for anything more sophisticated than a Boy Scout campout, the expense could be staggering.

"I'm afraid our land will become so valuable that we won't be able to afford to keep it," Mrs. Ise says. Similar land in the same area is already selling for \$2,500 to \$3,000 an acre.

A proposed change in the Kansas tax laws—intended mostly to help farmers—will ease tax pressure on people like the Ises, too. The measure is for the adoption of a use-value basis for appraising land for tax purposes. Under this plan, farmland, or undeveloped land such as the Ises', would be taxed purely on its current use, not on the basis of its proximity to population centers, housing developments or shopping centers. Kansans will vote on the measure next year.

The bill is essential if farmers and environmentalists are to compete with big business for choice land, Mrs. Ise believes. "We don't have a big corporation behind us," she says. "This is the only way to save our land. I don't think people who buy land for preservation or for farming should be forced to sell it to pay taxes."

The Ises looked for almost two years before they found their land. "The first time we came out here I said 'that's it,'" Mrs. Ise remembers. "I'll tell you what made me decide. I was over here, standing

by the creek. I looked up and there was a deer on the other side, looking right at me.

"I'm worried because I haven't seen any deer lately. Civilization is coming. They're getting crowded out."

Ten acres of the land is an open field, thick with grass and wildflowers. The other 30 acres is rugged woodland, thick tangled vegetation and steep rocky hillsides. It's easy to forget that Kansas City is a stone's throw away—unless one listens for the not-so-distant roar of bulldozers leveling land for development. "We call the land a preserve," says Mrs. Ise, "but that makes it sound bigger than it really is."

The Ises and their three children picnic on the land, explore, learn the names of trees, flowers and birds they don't find near their comfortable suburban home. "It's so important to create an awareness of and respect for land in children," Mrs. Ise says.

"I can understand why people want to build homes on land like this. But if we use

up everything there is to use now, what will be left for our children? Will my great-granddaughter ever see wilderness like this?"

In addition to the land-use value tax, Mrs. Ise favors tax changes to encourage the donation of undeveloped land to private and state preserves. Under current law, the donor of land appraised at \$40,000 would gain back \$26,000 in tax benefits. Ise believes the entire value of the land should be returned to the donor.

"I believe many people would donate land if they received full value for it," she says. The Ises are considering such an arrangement for their own land someday.

For now, Mrs. Ise isn't half through learning about the plants and animals that inhabit her land. Stopping to examine a butterfly resting on a blade of grass, she says, "I'll have to study the insects next. There are so many things to learn; the names of all the trees and wildflowers."

Protecting the soil is learned behavior

TIN'SNEWS—Conservation of such natural resources as soil, water and wildlife is learned behavior.

Landowners who protect the land do so because they have learned the importance of saving that resource. They have developed attitudes that place conservation high on their list of priorities.

Protecting the land is something that is immensely more effective when done voluntarily. Forced conservation is not effective. Because of the importance of voluntary participation, education of landowners—present and future—is one

of the keys to effective protection of soil resources.

Promoting such education is one of the important functions of the Benton County Soil Conservation Service (SCS) and of the such associated organizations as the Benton County Environmental Education Committee.

The education group and SCS work together to promote an understanding of the importance of soil conservation.

The education committee each year works with teachers and students.

The group instructs faculty members on

how to be more effective soil conservation teachers. With students, the committee holds contests and provides instructional material to promote interest in soil conservation.

Members of the committee are Harlan Bell, Marjorie Rouse and Jacquelyn Hodgson, all of Vinton, Ervin Glinesman, Newhall and Ralph Leigh, Iowa Conservation Commission officer from Marengo.

During the last year, the committee held a teacher workshop at Indian Creek Nature Center, organized and ran poster contests for students in grades 4-6; a workbook contest for students in grades 5-8; and a speech contest for grades 7-12.

(This year's Benton County soil conservation speech contest will be Oct. 14 at 8 p.m. in the Soil Conservation District office, Vinton.)

The group also is ordering manuals and publications for libraries in the county.

Peters and the SCS staff are always engaged in selling soil conservation practices by teaching land owners its value. Peters is vocal about proper land use. He and his staff spend time telling groups such as school classes and civic and service groups about conservation.

Often, the education process comes down to a personal level as the conservationists tell individual landowners on the worth of implementing conservation practices.

The staff also provides up-to-date information on cost assistance and the latest in conservation techniques, procedures and practices.

It takes foresight to see that what is done with the soil today will greatly affect the affluence of a landowner's sons or grandsons or great grandsons when those generations inherit use of the soil.

This foresight is not instinctive. Often it stems from attitudes learned through experiences with soil resources. This kind of learning is the work of Benton County residents who dedicate themselves to the cause, such as the SCS staff and the Benton County Environmental Education Committee.



Urban erosion causes problems

Erosion of soil resources is not just a problem of rural areas. Scenes such as this are becoming more common. The

gully is moving rapidly into a new housing area because of improper water disposal and poor ground cover. The gully is within 100 feet of the new home.

Conservation moves to town

When the soil conservation movement began 40 years ago, erosion was thought of only as a farm problem.

But recently, soil erosion has been

recognized as a serious city problem, too.

Soil erosion can be 10 times worse on urban development land than on cropland, and 200 times worse than on pastureland,

says William Brune, state conservationist with the Soil Conservation Service.

Stream channels below construction sites often become filled with sediment, then flood after heavy rains.

Sediment, the greatest single pollutant of our streams, lakes and reservoirs, damages nearly every area where it is deposited, Brune said. It lowers water quality for recreation uses and shortens the effective life of reservoirs. It buries lawns, fills ditches, clogs storm sewers, blocks navigation channels, and hurts game and shell fish.

Nationwide damage caused by sediment each year is estimated at \$500 million.

Iowa is a leader in the fight to stop erosion and sediment within cities. In 1970, the Iowa legislature passed a law requiring cities to become part of local soil conservation districts. Districts are the local subdivisions of state government responsible for carrying out soil conservation programs, explains Brune.

Another law was passed in 1917 urging soil conservation on farmlands and urbanizing land. "Soil loss limits" of 5 tons per acre per year are now established for construction sites.

If these limits are exceeded, neighbors being damaged by sediment may complain to the soil district to force the developer to solve the problem.

Many Iowa cities are passing erosion control plans before a building permit is issued. Others are cooperating with farmers outside the city limits to stop erosion and flooding problems which affect farms, city land and facilities.

Many conservation practices and concepts used to control erosion on farmland can be used in cities, says Brune.

The USDA Soil Conservation Service, with an office in every county, is the source of help for erosion problems. Each office has soils information to show developers or home builders potential problems, as well as specific recommendations for solving urban erosion problems.

The Iowa Department of Soil Conservation has a new 225-page book "Iowa—Guidelines for Soil and Water Conservation in Urbanizing Areas" which outlines solutions to urban erosion problems. The book is available to city officials and urban developers.

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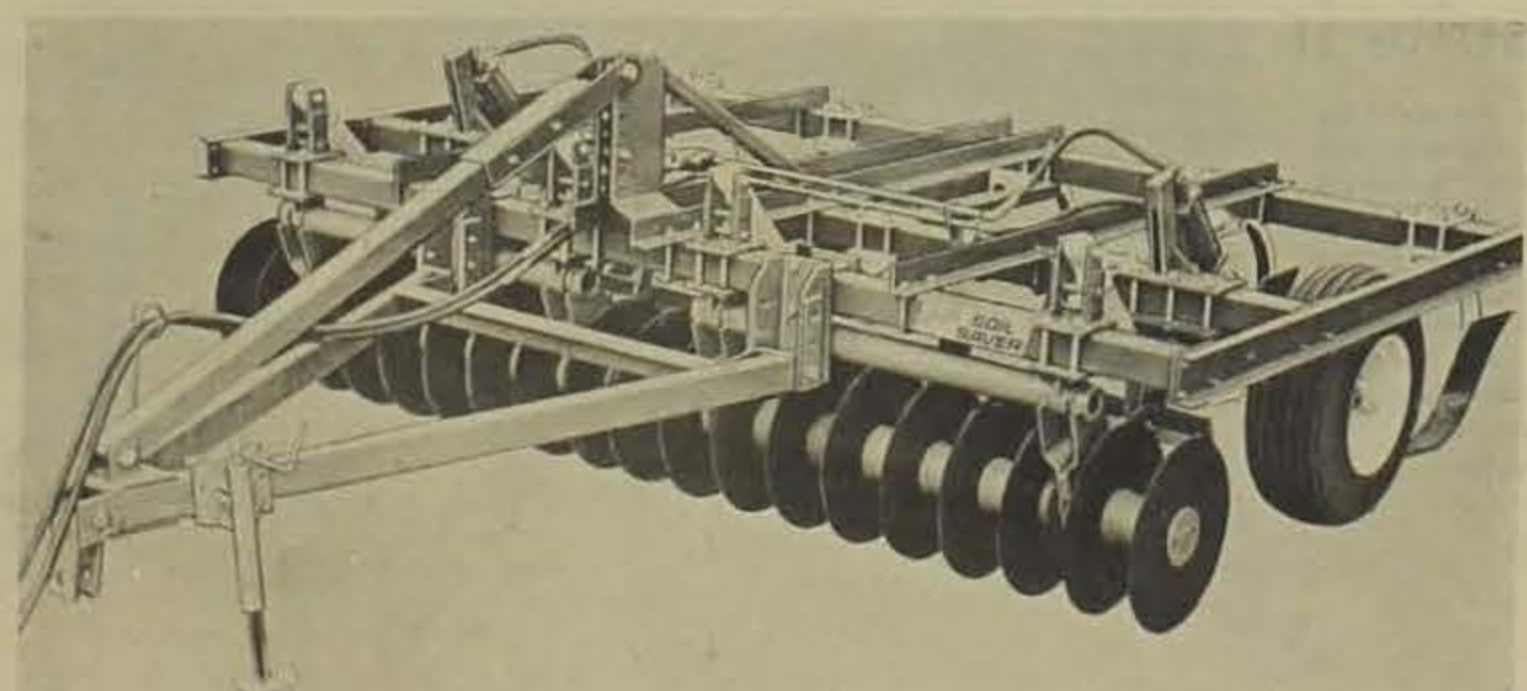
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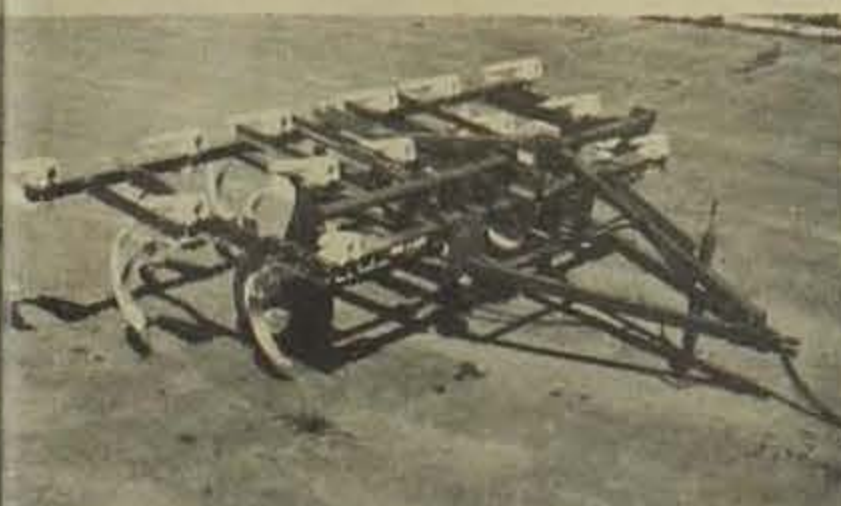


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time, he says, adding it must be passed on to the next generation with as much potential as possible. Soil is a resource that can be used properly and not be depleted. In contrast, Peters makes the analogy with oil:

"When the oil is all pumped from the Arabian desert, they will have sand left. There will be no way to replace what is gone. If we take care of what we have left of Benton County's soil, we can produce energy and food with it. All we lack is the will to do it," Peters said.

Bob Mallin, soil conservation technician with the Benton County SCS takes a look at the difference an adequate top soil made this summer. The corn at the far left was growing in an area where the soil had lost its topsoil. Yield from corn like this was estimated to be about 40 bushels per acre. In the same Benton County field, Mallin found corn growing on a soil which still has a good topsoil, left. This corn, it was estimated, would yield about 100 bushels per acre. SCS figures show more than 16 per cent of Benton's cropland has been seriously eroded.

Conservation tillage grows in importance as more land is farmed

Conservation tillage is especially important because of increasing acres being row cropped.

During the past 35 years, row cropping has increased at the expense of small grain hay and pasture. The erosion hazard is increasing because land not suited to intensive row cropping is being put to such use, says Min Amemiya, extension agronomist at Iowa State University.

Lack of snow cover last winter plus heavy spring rains caused excessive runoff and soil erosion on many 1976 corn and soybean fields. This season, drought is a problem in many parts of the state.

Weather extremes point to the need for effective soil and water conservation. One way of minimizing excess runoff and erosion is to adjust tillage practices.

On level to gently sloping land the proper choice of tillage sequence and implements can control soil erosion. On steeply sloping land conservation tillage enhances the effectiveness of other soil conservation practices such as contouring, terracing, grass waterways and diversions necessary to control erosion under intensive row cropping.

Crop residue left on the soil surface helps control erosion. The amount of crop residue remaining depends on the type of tillage used, explains Amemiya. The residue may be completely buried by moldboard plowing or partially incorporated with a chisel, disk, field cultivator, rotary tiller,

or till planters. The soil may be left intact with the slot planting technique.

Additional tillage operations either incorporate more residues or uncover partially buried surface residue, depending on type of tool and depth of operation.

A rough, mulch-covered soil surface reduces runoff and soil erosion. The rough soil surface traps water in small depressions. Mulch intercepts raindrops and slows water runoff. There is less runoff, more water intake and less soil loss.

On level land subject to wind erosion, Amemiya says a rough mulch-covered soil surface reduces soil losses by protecting the surface from wind action and altering wind velocity as it blows over the surface.

Conservation tillage systems usually require less field time per acre and less labor input for crop production. They use less fuel per acre and less labor input for crop production. They use less fuel per acre because the amount of tillage is less, and there are fewer trips through the field.

Under dry soil conditions, conservation tillage systems may be beneficial because the plant residue mulch reduces evaporation leaving more soil moisture available to the crop.

Preplant tillage operations are reduced in some conservation tillage systems, so delay because of weather or soil conditions are minimized. Soil compaction hazards are also reduced because of fewer trips across the field.

Crop returns are generally comparable for different tillage systems if weed control and stands are adequate, says Amemiya.

Under certain soil conditions, however, there are limitations to conservation tillage. Excessive mulch on level, heavy-textured soils with restricted drainage may harm the planted crop.

Under these conditions the soil is usually wetter and colder, which retards germination and early plant growth. A mulch may increase the hazard of some insect and disease pests if the right weather conditions prevail. Some conservation tillage systems reduce weed control options.

Some form of conservation tillage should be a part of most Iowa farms, says Amemiya. Conservation tillage will maintain the productivity of Iowa soil to meet demands for crop production, and help keep sediment out of our water courses and impoundments.

But tillage is only a part of the total crop production system, reminds Amemiya. The tillage system must be compatible with other crop production factors such as fertilizer applications, pest control, row spacing and harvest operations. In contrast to conventional tillage, conservation tillage requires a higher level of management.

When managed properly, conservation tillage systems reduce erosion hazards of row crop land, save time, fuel and labor without reducing crop returns.

FHA loans money for conservation

Loans are available to farmers and ranchers for developing, conserving, and making proper use of their land and water resources, says R.R. Pim, state director of the Farmers Home Administration (FHA).

and making wise use of income and credit. He also provides on-the-farm assistance

with management problems during the first few years of the loan.

Loans may be used to drill wells, purchase pumps, sprinkler systems and other irrigation equipment; construct and repair ponds, dig ditches and install tile to drain farmland.

These loans may also be used to level land, carry out basic land treatment practices including liming, fertilizing and seeding; subsoil or sod land; establish permanent pastures and farm forests.

Other uses may be to build dikes, terraces, waterways, and other erosion control structures.

Farm owners and farm operators eligible for the loan must be unable to obtain sufficient credit elsewhere at reasonable rates and terms to meet actual needs and be unable to finance the proposed project with their own resources.

The county or area committee of the Farmers Home Administration determines the eligibility of applicants.

Soil and water loans are accompanied by technical advice to help borrowers make a profitable use of land and water, labor, capital, and other resources that will be available to them. The Farmers Home Administration county supervisor furnishes advice in keeping accurate records of expenses and income and in budgeting

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Reclamation is part of total picture

Reclaiming mined land is an important part of conserving Iowa soil, says Marvin Ross, head of the mines and minerals division of the Iowa Department of Soil Conservation.

Oil and other mineral producers now incorporate reclamation procedures into their basic mining plans compared to previous practices of leaving the land bare. Occasionally, surface miners are reestablishing old scarred lands along with present-day mining operations.

Iowa is rich in coal, limestone, sand and gravel, gypsum, clay and other mineral resources. To extract them, tremendous amounts of topsoil and dirt often must be removed.

Old practice was to dump this material anywhere, but now surface miners restructure the land when they remove this soil, explains Ross. The land is now more productive than it existed originally.

Use of terraces, grade stabilization structures, and other conservation practices are changing marginal land into fields capable of crop production.

The Iowa State University Coal Mine, for example, will eventually transform a heavily eroded pasture into a terraced field, in addition to extracting coal. Surface miners also minimize environmental degradation during actual operations. Seeding basins, diversions, and critical area plantings help reduce surface runoff from the disturbed lands.

The Iowa Surface Mining Regulation Law requires all toxic materials be covered with good material capable of revegetation, says Ross. Mine operators must also slope the overburden to a stabilized land form with the potential for farming.

The Iowa Department of Soil Conservation's mines and minerals division

has authority to refuse any land to be surface mined for coal if (1) land rehabilitation is not feasible; (2) damage would result in harm to important historic, cultural, scientific values or to aesthetic or natural systems; (3) life and property would be endangered; or (4) long range productivity of water supply or food and fiber products would be reduced.

Mine operators must register each mining site with the Iowa Department of

Soil Conservation's mines and minerals division, says Ross.

Each mine operator must also be licensed by the state and must post bond equal to the cost of rehabilitating the land to its previous productivity.

The Land Rehabilitation Advisory Board helps the mines and minerals division formulate regulations and provides expertise in the reclamation of surface mined areas.

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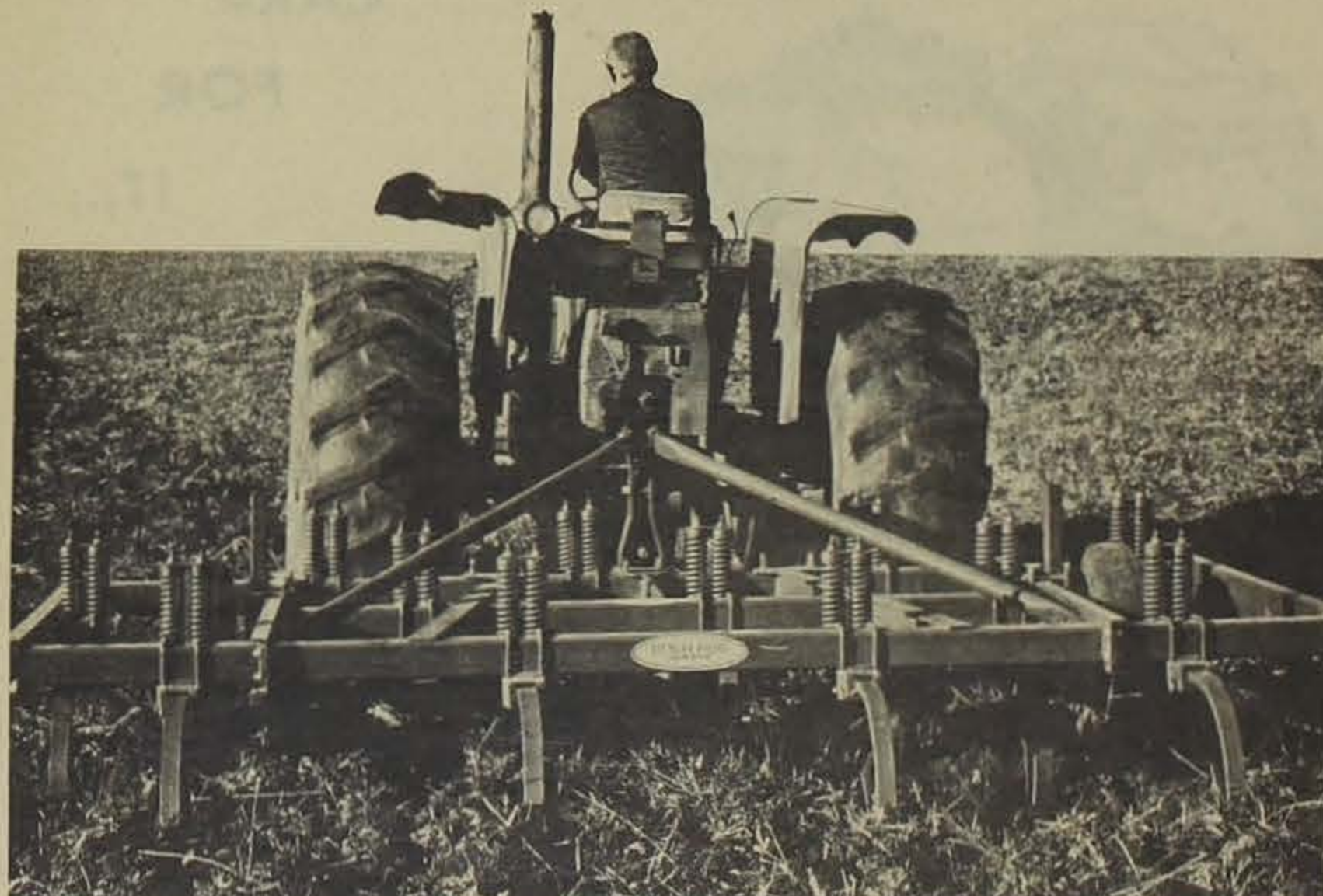


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Caution: clearing under way

Conservation officials are becoming more and more concerned with the increasing destruction of dwindling woodland resources, primarily by pasturing. Land should be either pasture or forest, not both. Grazing a wooded area clears the timber as surely as if a bulldozer was used, Benton

County Soil Conservationist Floyd Peters says. The effect of grazing is seen in areas such as the one above. The next-generation regrowth has been trampled and eaten, but just over the fence in the roadside ditch, where there is no competition from livestock, a new forest is starting.



Crow's nest

A forest is a place filled with life. A crow has built its nest of sticks and twigs in the fork of a tree, above, while on the ground tree seedlings insure continuation of the forest. Hibbs says the oak seedling, right, is probably about a year old, but said the below-ground part of the plant could be many years older because of evidence previous seedlings have been broken or nipped off. This type of growth in a forest is what makes woodlands a renewing resource, when livestock is not allowed to graze the area.




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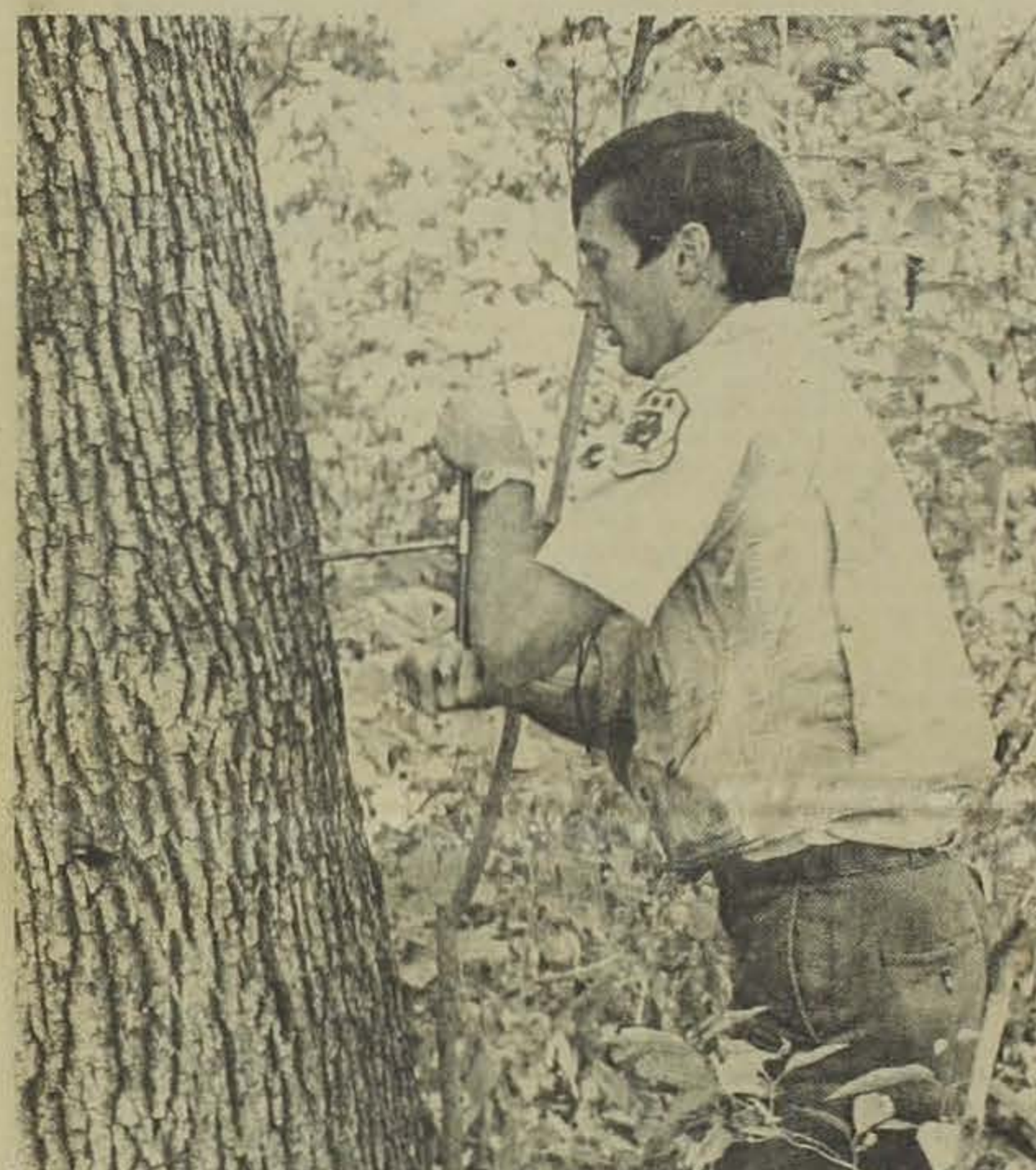
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Checking the rings

Forester Bob Hibbs checks the growth rate of a white oak tree in a properly managed woodlands. The tree showed about four new rings per inch, indicating it was growing an inch in diameter every four years, which Hibbs said is a good growth rate. Management assistance from people like Hibbs is available to those interested in making woodlands a part of their total farming picture.



★ Woods

Peters and Hibbs concur, the one greatest mismanagement of forest resources is the pasturing of timbered lands.

Hibbs says at least 80 per cent of the forests in Iowa (timber heavy enough to be considered forests covers only four per cent of Iowa, three per cent of Benton County are being mismanaged by being pastured.

"It's either, or," Hibbs says. "Either pasture or forest. It can't be both ways."

Peters says of pastured woodland, "They've decided to clear that timber. Grazing it is just as effective as a bulldozer. It just takes longer."

In the last two decades, Benton County has lost 4,700 acres of timbered land. This amounts to a loss of 235 acres per year.

Along with the loss of harvestable lumber, there has been a loss of wildlife cover, increased soil erosion, reduction of water quality, and a general decline in the county's aesthetic appearance.

Good forest management can reverse this trend, Hibbs says.

The first step in good forest management is protection of the timber. Protection may be needed from insects, disease, fire, livestock, chemicals, or clearing. Land clearing has historically been the prime factor in mismanagement of Iowa woodlands. Since most of the prime agriculture land has already been cleared, clearing has now taken the form of pasture improvement. Livestock trample new seedlings, compact the soil, and destroy tree feeder-roots. Additionally, they eat the non-thorn species which means that eventually there will be nothing left but the thorn trees.

Hibbs says the wonderful thing about woodlands is they are a renewable resource. Land left in timber is a continuing resource that replaces itself. It will thrive if given a chance.

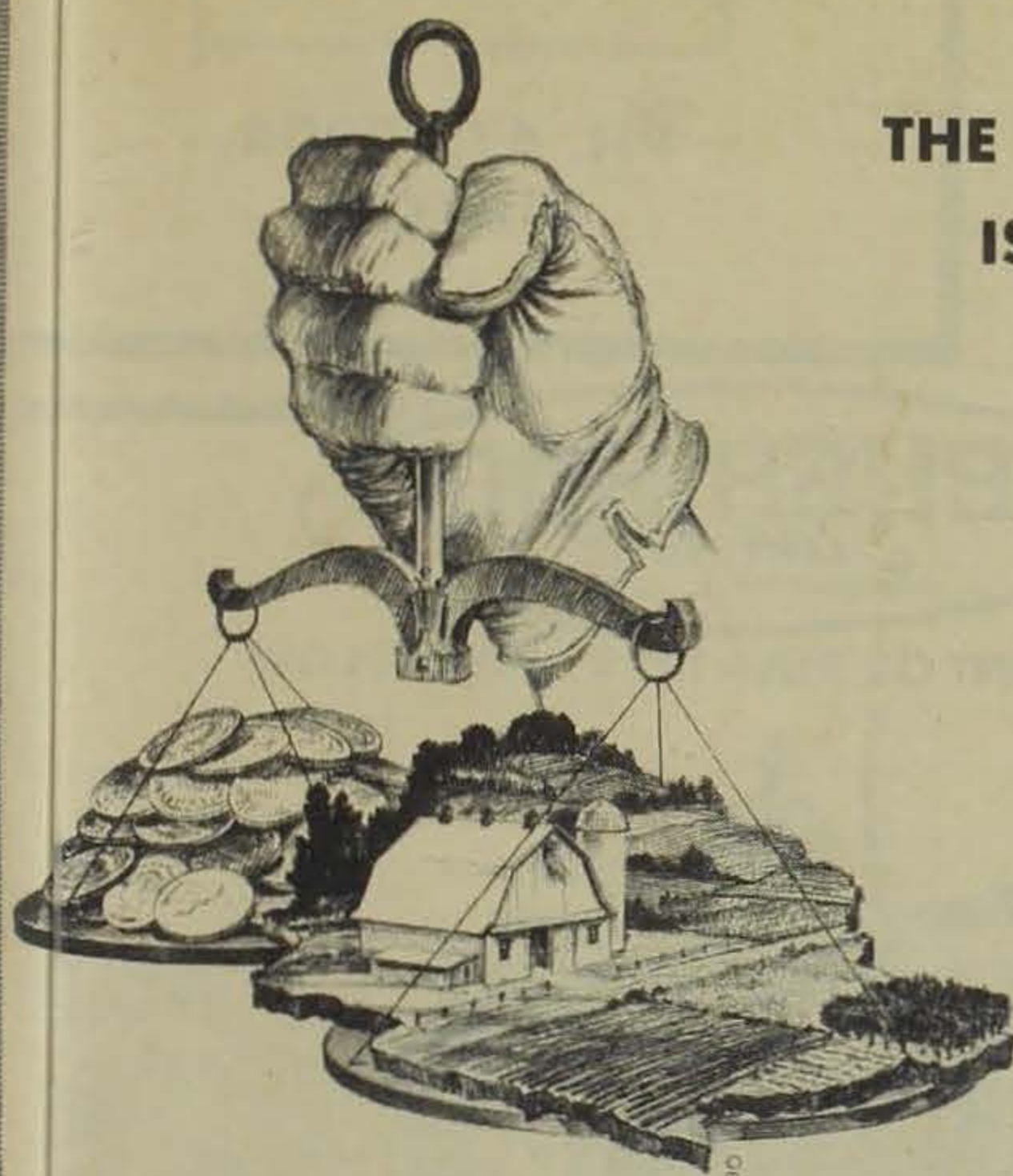
A walk through a properly managed woodland shows the renewable quality of the crop. The ground around the largest trees is covered with vegetation — generally tree seedlings and saplings from year-old, foot high growth to two-inch diameter, head-high saplings.

This undergrowth makes strolling through the woods difficult, but it is what makes the woods possible.

Hibbs says many of the saplings may be 10-15 years old. They grow little. Year after year, they remain about the same size, waiting. They wait for the larger trees to be harvested or to die. When that happens, those saplings in waiting quickly fill the void.

This feature makes a forest relatively easy to manage, and gives woodlands their

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Demand will exceed supply for wood in 30 years

This country's demand for wood is expected to exceed the supply within 30 years unless trees are planted each year and more forest land is placed under management, says William Farris, assistant state forester with the Iowa Conservation Commission.

In 1973 congress authorized the Forestry Incentive Program (FIP) to share the cost of tree planting and timber stand improvement with private landowners.

The federal share of these costs is 75 per cent in Iowa.

Lands owned by the forest industry and the public are being planted and improved at the fastest rate possible, according to Farris. But smaller, private owners, who control the majority of forest lands, do not have the funds to make such long-term investments. The Forestry Incentive Program is designed to share this expense with these private, eligible owners.

Eligible forestry practices include tree planting and timber stand improvement,

says Farris. Planting trees is intended to increase timber production and improve the environment. Timber Stand Improvement is aimed at increasing growth of trees on sites suitable for production of sawtimber and veneer logs.

Farris says there are a few requirements a landowner must meet to be eligible for cost-share assistance — Own less than 500 acres of eligible forest land.

Be a private forest landowner. Any individual, group, association or corporation may be eligible if not regularly engaged in the business of manufacturing forest products or providing public utility services.

Have land that is suitable for forestation if not presently in trees, for reforestation or for timber stand improvement.

Have had no commercial harvest within the last five years on lands for which FIP cost-sharing application is made.



Where to from here?

Forests, corn and beans all have at least one thing in common. They're all crops, which play important roles in Benton County agriculture. While certain land is best suited

for growing corn and beans, other is more conducive to forests. Landowners can use both effectively in their total management programs.



are destroyed by grazing

"renewable" characteristic. It is this "next generation" that pasturing destroys. It is estimated that before Iowa was farmed, much of the land was covered with timber. Most has been cleared. First the flat lands were farmed. As the competition for land intensified, more marginal land was cleared. Much soil that once was protected by trees is now vulnerable to erosion.

But the same token, much of what was once trees is being more properly used today as crop land, or pasture.

"This is land that should be in woods," not mowed in the top 4-12 inches as with crop land. After the first year or two, forest soil loses its fertility. Often because of the terrain, the thin, rather fragile protective top layer is eroded away, leaving B horizon or parent material.

There are certain areas that should be in wood. This is a point Hibbs and Peters like more farmers to understand. can be productive, but assets with commitment. The first step is to protect a woodland.

All the timber is adequately protected, there are many forest management alternatives. Tree planting necessary if natural reseedling is late. Thinning may be needed in a stand. Harvest, too, can be considered if the timber is adequately protected.

Usually, some form of timber improvement follows protection. And this takes the form of tree-species selection. Weed trees such as boxelder, sycamore, locust, and hawthorn should be removed to allow growing space for more desirable trees. Forest openings can be created to black walnut or, if the area is accessible, it could be planted to black walnut Hibbs says.

Good forest management cannot be economically with corn or beans, perhaps for black walnut and other high-value tree production. But most of the woodland resource is not found on corn and bean ground.

There are definite benefits to maintaining and managing the timber resource. Iowa has a forest reserve tax which will reduce taxes on protected land.

Many landowners are becoming more of the leisure time hobbies to be enjoyed in the woodland, Hibbs says.

Photography of wildflowers, growing medicinal herbs (ginseng \$40-\$80 per pound), annual field trips, hunting, camping, collecting firewood for the fireplace, collecting nuts, maple syrup collection, or walking in the woods are all available in Iowa's timbered

There are both local sawmills and nationwide timber buyers who will utilize the resource.

And there are the non-monetary values to be realized — erosion control, wildlife habitat, recreation, water quality control, and aesthetics.

There is help available for landowners interested in making forests a part of his land use program.

The state offers about 2.5 million each spring at \$25-\$30 per thousand to landowners. These can be used for wildlife cover, reforestation, Christmas trees or erosion control. (The only prohibitions are against using the trees for windbreaks or landscaping.)

Also, management assistance is provided through district foresters such as Hibbs who form the Forestry Section of the Iowa Conservation Commission.

Hibbs serves this area. He can be contacted through the county Soil Conservation, ASCS or Extension offices, or through his Marshalltown office headquarters (515-752-3352, P.O. Box 681 Marshalltown, 50158).

The forestry section also works to

promote woodland resources by supporting and administering federal cost-sharing programs for tree plantings; does instructional and educational work with schools, individuals and the public; and provides on-site recommendations and management assistance.

Woodlands are not an overnight proposition. Hibbs says the normal cycle for forest populations ranges from 50 to 150 years — seedling to maturity. There are two types of forest stands — the bottomland woods on river bottoms, consisting primarily of such species as soft maple, cottonwood, and the upland oak-hickory timber, which can include hard and sugar maple, all types of oak, walnut, butternut, hickory and others.

These stands are native to Iowa. Much of the timber harvested in Iowa is from native trees. Hard-wood timber in many pastures are native, but areas that have been pastured for too long are quickly taken over by thorned species of trees.

Forests are a resource and a management option open to all landowners. There are many benefits when trees are made a part of a total soil conservation program.

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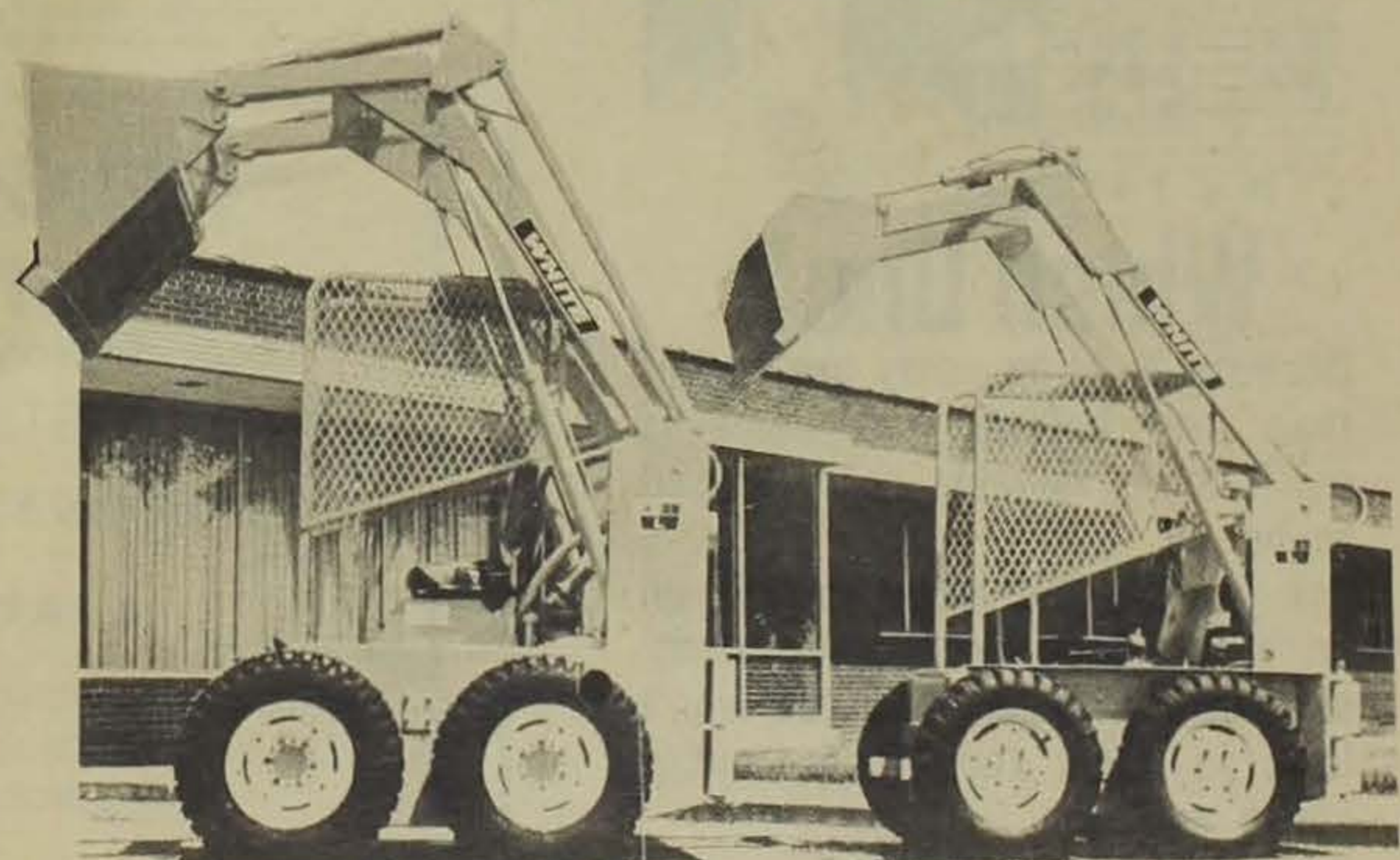
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Kullmer is one of Bentonians building terraces

LA PORTE—There's a hillside on the Jim Kullmer farm south of here that will now make better use of rainfall than it did a couple of months ago.

Kullmer recently completed building 4,200 feet of parallel, tile-intake terraces. The terraces were built on a sloping hill of mainly Dinsdale soil and B and C slopes (4 per cent and 5-9 per cent slope). A series of seven terraces were built.

These terraces are the first part of a total plan developed with the Benton County Soil Conservation Service to protect Kullmer's farm. Benton Soil Conservationist Floyd Peters said the Kullmer land is typical of what makes up Benton County—rolling, with relatively good surface drainage, but benefiting by soil conservation efforts.

Kullmer, who farms 240 acres he owns and rents, plus assisting his son-in-law Jeff Lesh, with 13 more acres—has been contouring and strip cropping in the 17 years he has farmed.

The terraces, built in August by Schmitz Excavating, Washburn, are the first Kullmer has had. They were built to allow

two passes with six row equipment on the outboard side of the drain stand pipes.

Terraces are being built now for \$1-1.50 per foot.

Parallel, tile-intake terraces interrupt the flow of run off water down a hillside. The water is trapped by the raised outer portion of the terrace, and impounded. The water is allowed to soak into the ground, as well as excess is carried away by an underground tile line.

By impeding the flow of water, the runoff is given time to drop its load of silt and ag chemicals, cutting the amount of river pollution, and making chemicals more effective by keeping them on the land.

This year, more than 70,000 feet of terraces were installed in the county. It is expected those terraces will protect about 300 Benton acres.

Kullmer and his wife, Gretchen have a son, Jamey, 8, and daughter Mrs. Jeff (Sheri) Lesh.

This year, Kullmer is raising about 150 acres of corn, 35 acres of soybean and 25 acres of oats. He also raises about 600 hogs a year (although he says he may cut back some next year.)



Terrace builders

Terraces do the most effective job of protecting steep land from erosion. More than 70,000 feet of terraces were built in the county during the '75-'76 fiscal year. This provided protection for about 300 acres. Cost of terrace construction varies from \$1-\$1.50 per foot. One such terrace project was completed on the Jim Kullmer farm southwest of Mt. Auburn. Kullmer, on top of terrace bank, above, received assistance designing and planning the terraces from the Benton County Soil Conservation Service and conservationist Floyd Peters, above. The parallel design of the structures requires the reshaping of the soil. Tile is laid down the hill, with water allowed to enter it through standpipes on the terraces.



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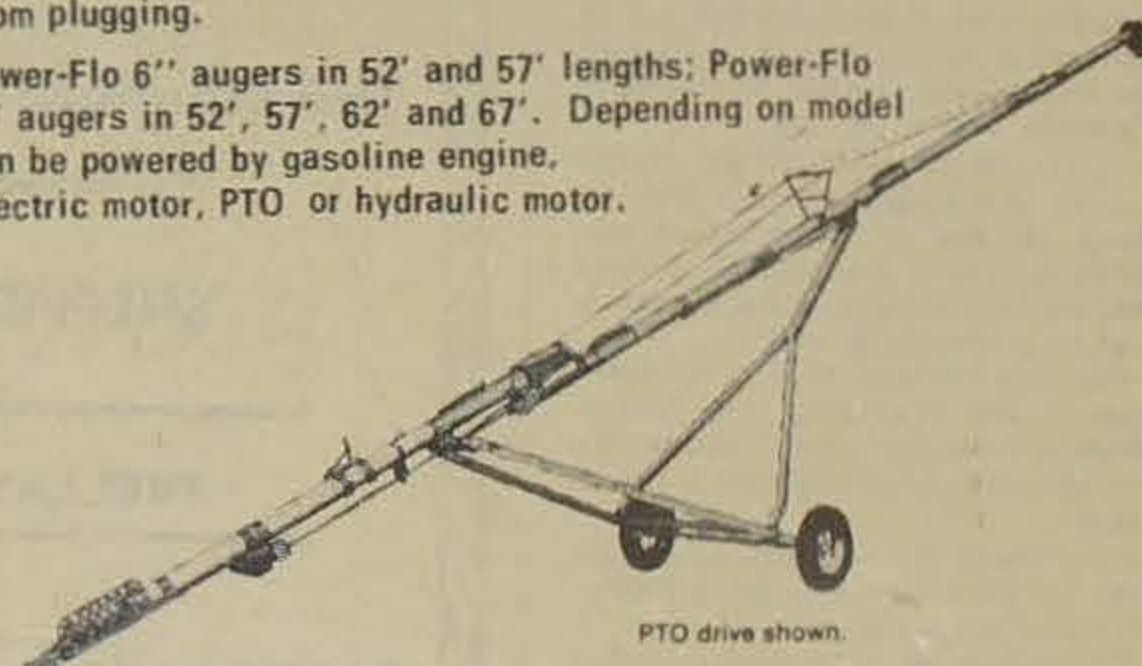


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In addition to the pine trees Raub planted 10 years ago, the area includes a stand of timber and brush that provides homes for deer, birds, raccoons, rabbits, and a variety of other wildlife.

"One evening last summer, I was sitting in the boat in the middle of the pond, fishing," Raub said, when I looked up, and there was a big doe standing on the dam. She didn't see me and just went on about her business. That's quite a site," he said.

Also, the area provides the family with picnic areas and Raub says his son each winter traps part of the muskrat population around the pond, selling the pelts.

The pond each year yields many pounds of bass, Raub adds.

Bill and Allie Raub have two children, Scott, and Shelli, a junior in Dysart-Genesee High School. Raub farms 520 acres, with 20 acres this year in corn and 180 acres in beans. Sallie and Bill farm together. "He's my hired man," Bill says. Also, the farming operation includes farrowing and feeding to slaughter 400-500 hogs a year. Raub started farming his home property in 1958.

Wildlife also benefits from less intensive conservation practices. By avoiding fall plowing, wildlife finds shelter and food through the winter. During the summer, grass along fences, and in waterways also provides haven for nesting birds. Plantings of shrubs or timber for erosion control, windbreaks or other uses also provides cover for wildlife.

"Good land management is completely compatible with good wildlife management. Control of erosion and matching vegetative cover with the proper soils, for instance, is good wildlife management," says Bill Welker, a Soil Conservation Service biologist.

"As an Iowa farmer, you have a pronounced effect on wildlife populations. You're one of the many who manage about 90 per cent of the state's land for crops, pastures, or timber, and how you manage it determines whether wildlife gets basic foods, cover or nesting," he said.

Welker has other suggestions for doing nothing to help wildlife. He said if a gully or draw is not an erosion problem, save work and leave the brush and vegetation for cover, and don't bulldoze it shut.

Don't farm right up to fence rows. "A strip of grass or plants there can mean a lot to wildlife," he said. Also, he suggests not changing the natural landscape when possible.

Wildlife habitat — large or small, permanent or seasonal — has a place in a complete soil conservation program.

In addition to Raub's wildlife area, he farms on the contour where necessary, plows as little as possible, (discing instead), utilizes existing terraces ("This farm was the first in the county to have terraces," Raub said), and the use of tile drainage, including several hundred feet just installed.

Raub sees the possibility of replacing the existing terraces sometime in the future with parallel, tile-intake terraces.



It's home

The Melvin Raub family of rural Dysart use a wildlife and recreation area for a variety of purposes. The seven acre tract is on what Raub says was pretty rugged ground. Development of the area started about 10 years ago with the planting of several hundred pine trees. Those that survived are now large enough to provide cover and homes for wildlife. The Raub's son Scott, a sophomore at Iowa State University, has been making more plantings, such as the small pine Raub examines, above. He's afraid the drought may have been hard on them this year. The lack of rain has also left the acre-plus pond three feet below normal. The area is used by the family for boating, fishing, picnicking and other leisure activities. The cover associated with the development also provides a home for many kinds of wild animals. Raub says he feels someone needs to do something to look out for wildlife.

Acres for Wildlife aids in cover plantings

A program entitled "Acres For Wildlife" has proved that major progress can be made in planting wildlife habitat.

Such a plan was carried out in Winnebago County and now other Iowa counties are following suit.

Last year, through a county-wide cooperative effort, 70,000 trees and shrubs were planted in Winnebago County, compared to 3,500 trees usually planted in that county.

The plantings were made on 118 acres of land owned by 80 different farmers. Individual planting ranged from one-tenth acre to 16 acres, says Bill Welker, Soil Conservation Service biologist.

The county USDA rural development committee sponsored the mass planting. Local, state and federal government agencies did the planning, then called on community groups for contributions to buy

plants and help with the planting. One spring day 260 sixth graders planted trees and shrubs on 16 acres.

The 80 farmers involved agreed to maintain the planting for wildlife, as well as donate the land. Land areas included steep hills, corners cut off by railroads, land near ponds, and marshy areas.

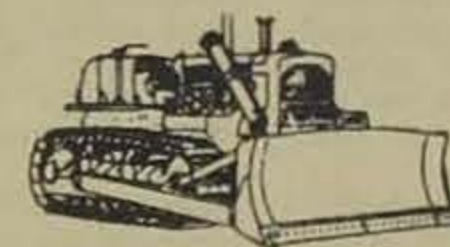
"This cooperative program really just takes advantage of the odd, idle acres of land in the county," says Dennis Castle, Winnebago county ASCS executive director. "North-central Iowa, with its rich farmland, has lost many a wildlife refuge to the plow, bulldozer and tile drain. We're putting some back."

Planting have also been made this year, although on a more limited scale. Committee members agree that the special program would work in any county that gives it a chance.

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New approaches to controlling erosion

New approaches are developing in Iowa to deal with an old problem — soil erosion.

The incentive is combined federal, state and local efforts to improve water quality in the state's lakes, rivers and streams.

Conservation measures such as terraces, conservation tillage, waterways and strip cropping conserve topsoil and improve water quality by reducing sediment discharge.

Sediment, a major pollutant itself, often carries other pollutants such as nutrients or pesticides, says William Greiner, director of the Iowa Department of Soil Conservation.

Sediment and other pollutants entering the waterways with surface runoff are classified as nonpoint sources of pollution. They cannot be pinpointed and are best controlled by soil, water and land management practices.

Point sources of pollution can be traced to a single origin, such as a sewage treatment plant or a pipe discharging industrial wastes, explains Greiner.

The Federal Water Pollution Control Act Amendments of 1972 require states to develop their own pollution standards. These standards must comply with guidelines established by the U.S. Environmental Protection Agency (EPA). Intent of the legislation is to make the nation's water "swimmable and fishable by 1983."

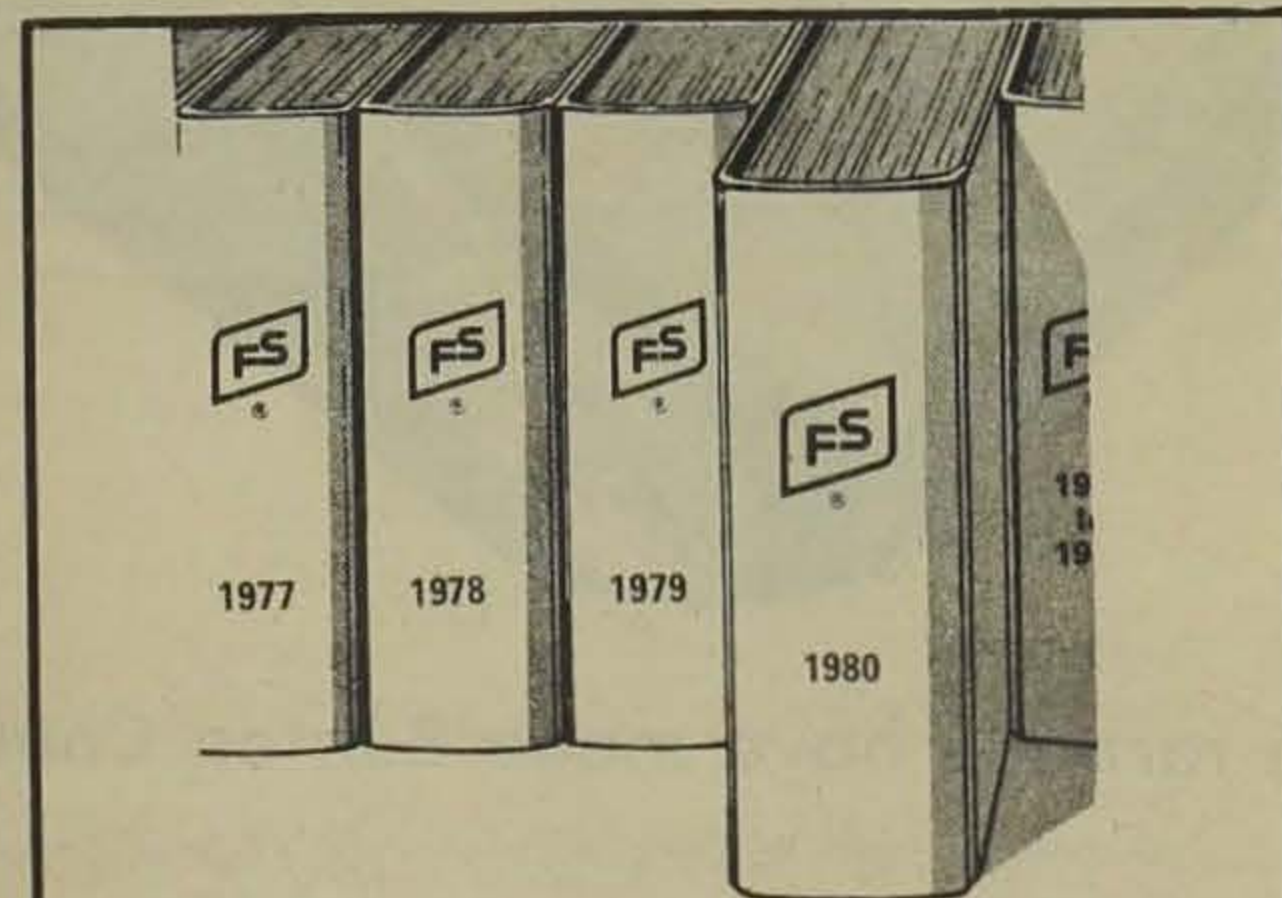
The Department of Environmental Quality (DEQ) is the state agency responsible for conducting water quality management planning for Iowa. The Department of Soil Conservation (DSC) is delegated responsibility for planning and implementing actions dealing with non-point pollution on a statewide basis.

This effort, called "208 Planning," is being initiated throughout the state, with special attention given to local citizen participation.

Public participation is encouraged locally through county resource coordinating committees, regionally through basin advisory committees and for the entire state by the statewide Policy Advisory Committee. Public participation activities are being coordinated jointly by DEQ and DSC. Before decisions on pollution control are

made, citizens will have an opportunity to be informed and to comment on these

choices. Thus public thinking will be incorporated into the planning decisions.



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Assistance available in conserving the soil

By WILLIAM GREINER
Director, Iowa Dept. of Soil Conservation
Landowners investing in soil conservation measures can get cost-share assistance from two sources — state and federal.

Legislators and citizens concerned about the productivity of Iowa's soil have started a state cost-share program to accelerate soil conservation work.

Iowa began its own cost-share program in 1973. State funds are used for permanent soil conservation practices and are administered through local offices of the soil conservation districts in the state.

Landowners who voluntarily install conservation practices may receive 50 per cent of the cost from the state program. The Iowa Department of Soil Conservation oversees the program. It received a \$4 million appropriation from the Iowa General Assembly for the 1976-77 fiscal year. The cost-share program was funded at \$2.5 million for the 1975-76 fiscal year.

Applicants for assistance under either program receive technical assistance from the USDA's Soil Conservation Service for layout and design of needed conservation measures.

Cost sharing helps pay for needed conservation work done on a voluntary and cooperative basis. Both landowners and the public benefit from measures

installed, so they share the cost.

Types of permanent soil conservation practices cost shared include terraces, erosion control structures, waterways, diversions, field windbreaks, tree planting and seeding of critical areas.

Five per cent of the state cost-share funds is held in reserve in case of mandatory measures required by Iowa's Sediment Control Law. Under Iowa law, persons whose land erodes at a rate exceeding the soil loss limits set by their local soil conservation district can have a complaint filed against them by adjoining landowners receiving sediment damage.

The law requires 75 per cent cost sharing by provided if landowners must install conservation measures because of a complaint.

Soil loss limits also apply to construction sites and nonagricultural lands, but cost sharing is not required on these sites.

Another portion of the state fund is used for watersheds above state-owned lakes. They qualify for special status and are eligible for reserve funds plus those allocated to the local soil conservation district.

The soil conservation districts require a landowner to be a cooperator with the district before state-cost-share funds can be made available for the voluntary and special project categories. In the 75 per cent cost-sharing category, where conservation practices are mandated, the landowner does not have to be a cooperator with the district.

The Iowa cost-share program has increased the application of soil conservation practices on Iowa lands. The fall of 1975 established records for the number of conservation practices applied during a construction season.

As a result, many districts throughout the state exhausted their state cost-share funds during the fall of 1975.

State conservation district officials are reporting a heavy sign-up for state soil conservation cost-share funds available since July 1. Requests for state cost-sharing funds exceed the 1976-77 allocation in many districts.

Landowners interested in this assistance should contact the Benton County Conservation District Office or Benton County ASCS Office.

Benton SCS business is conservation

TIMESNEWS—There's one agency in the county that's whole business is assisting with soil conservation... the Soil Conservation Service.

The SCS is a federal program providing assistance to the Benton County Soil Conservation District, one of 100 such districts in Iowa. The district is governed by a board of five elected commissioners. Headed by Benton SCS office is Floyd Peters, soil conservationist. The office staff presently includes secretary Connie Lange (who is employed by the state), and Bob Malin, conservation technician (who replaced Jerry Stevens, who took a similar position with the Black Hawk SCS). Peters and Malin are federal employees.

The SCS handles the day-to-day conservation work, promoting conservancy practices and providing technical assistance. The commissioners provide public input and guidance. It is also the commissioners that allocate state soil conservation cost-sharing monies.

Commissioners for the Benton district are John Richard "Dick" Schild, chairman, Bell Plaine; Roman Gardner, Garrison; Paul Anderson and Henry

Lyphout, Vinton; and Don Weichman, Atkins. Serving as appointed assistant commissioners are Harry Horak and Lee Goodell, Vinton.

Lyphout is seeking re-election to another six year term. He is unopposed. For the first time, the soil conservation commissioner elections will be held with the Nov. 2 general election. Previously, commissioners were elected in special elections or at special functions. Inclusion on the general election ballot is designed to encourage more voter participation in selecting the commissioners.

The SCS and commissioners execute conservation practices and allocate state cost sharing money. The Benton district has been allocated \$44,000 for the 1976 fiscal year. These funds, in conjunction with federal conservation funds administered through the county Agricultural Stabilization and Conservation Service (ASCS), will pay up to 50 per cent of the cost of installing a conservation practice. Applications may be made for both state and federal funds for the same project, but there is a \$2,500 limit per operator on federal grants.

Soil surveys aid management

Many farmers are using soil survey information to make management decisions on agricultural and non-agricultural purposes.

A soil survey is an inventory of the soil resources in the survey area, explains Gerald Miller, extension agronomist at Iowa State University. The inventory is based on the properties and characteristics of the soil 3 to 5 feet deep. The survey tells each soil's depth, organic matter level, texture, natural drainage, water holding capacity, plant available water, permeability, inherent nutrient supply, slope on which the soil occurs and degree of erosion which the soil has experienced.

Thirty-one of 99 counties have published soil survey reports, according to Miller. The field work is completed, and some type of modern soil survey publication is available in an additional 23 counties.

All soil uses are defined on the basis of their physical and chemical properties, so the soil survey report interprets how each soil type will respond to different management practices.

For example, the soil survey is important to a farmer who uses herbicides. Many corn and soybean herbicides have

label instructions regarding soil organic matter, texture, and pH.

Many herbicides change in sensitivity as organic matter pH and soil texture change in a field. Herbicide carryover can be a direct result of these factors.

Published soil surveys are a source of information about these factors for each soil type. This information can be used to plan a herbicide application scheme for individual fields.

Homeowners can use the soil survey report for locating home sites and suitable soil for liquid waste disposal, says Miller. Home builders are concerned with soil properties when evaluating a site for residential use.

The soil survey contains information for slope gradient, depth to water table, depth to bedrock, flood hazard, shrink-swell potential, water movement, and erosion potential for each soil type.

This information tells the user soil limitations of any site for residential use. Your county soil survey report may save you the headache and financial investment of a wet basement, cracking foundation, flooded lawn or improper working septic tank.

Pasture renovation

Pasture renovation is becoming more popular with Iowa farmers, says Frank Schaller, extension agronomist at Iowa State University.

Interseeding — a method of pasture renovation — reduces soil erosion compared to the conventional method of plowing and disking, then seeding. Legumes are interseeded in pasture with a special drill that opens a slit or trench in grass sod. Seeds placed in the trench and covered with soil.

Paraquat, a contact herbicide, can be sprayed on existing grass to retard growth until the new seedlings are established.

Establishing legumes such as birdsfoot trefoil, alfalfa, and crownvetch can increase pasture yields, improve forage quality, and eliminate the need for nitrogen fertilizer, says Schaller.

Interseeding is done quickly because no plowing or disking is required. The grass sod is not destroyed and will resume growth in three to four weeks after spraying with Paraquat. This reduces chances of erosion on hilly pasture land.

The seeding can be grazed during the seeding but should be limited to favor legume establishment.

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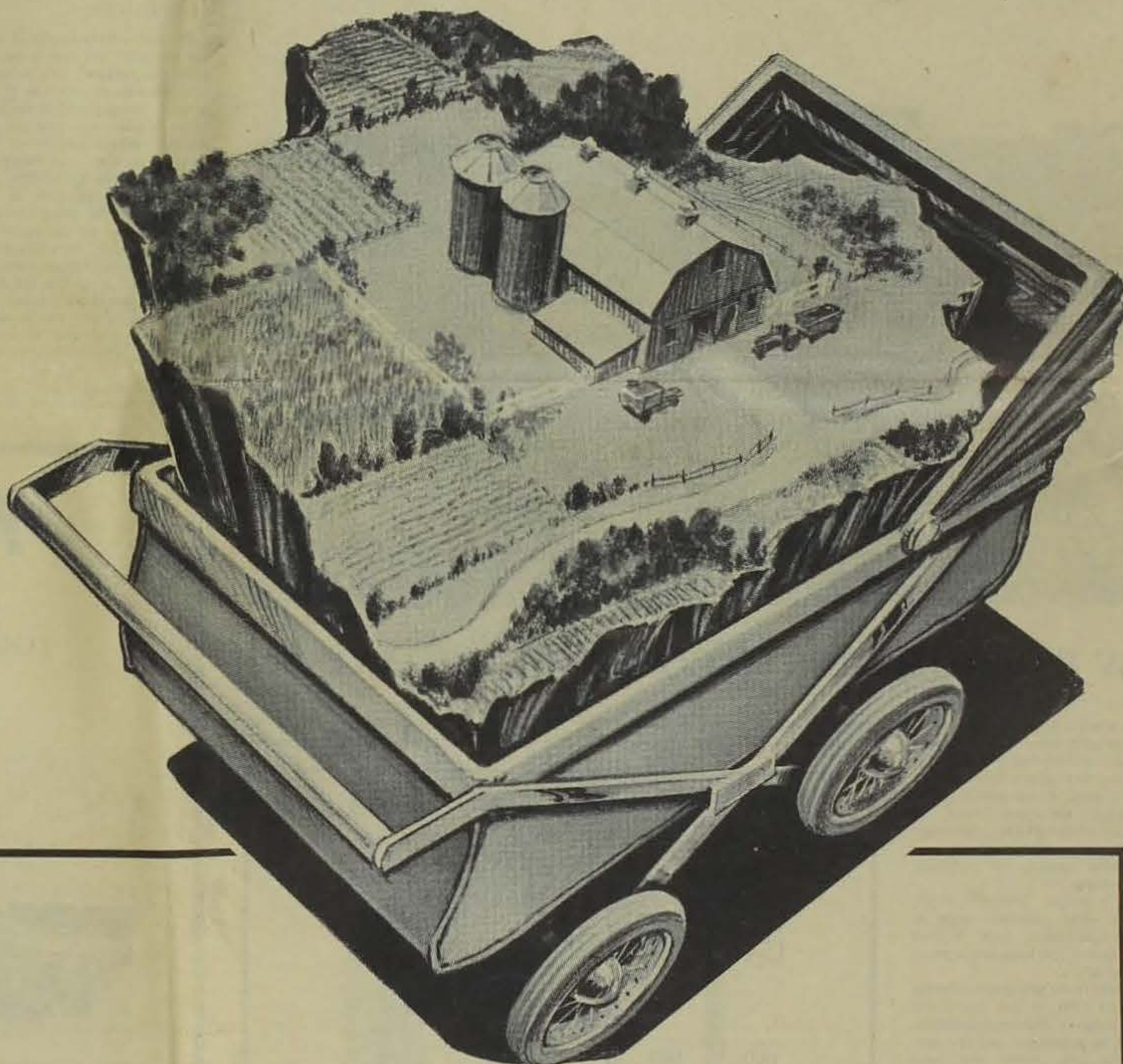
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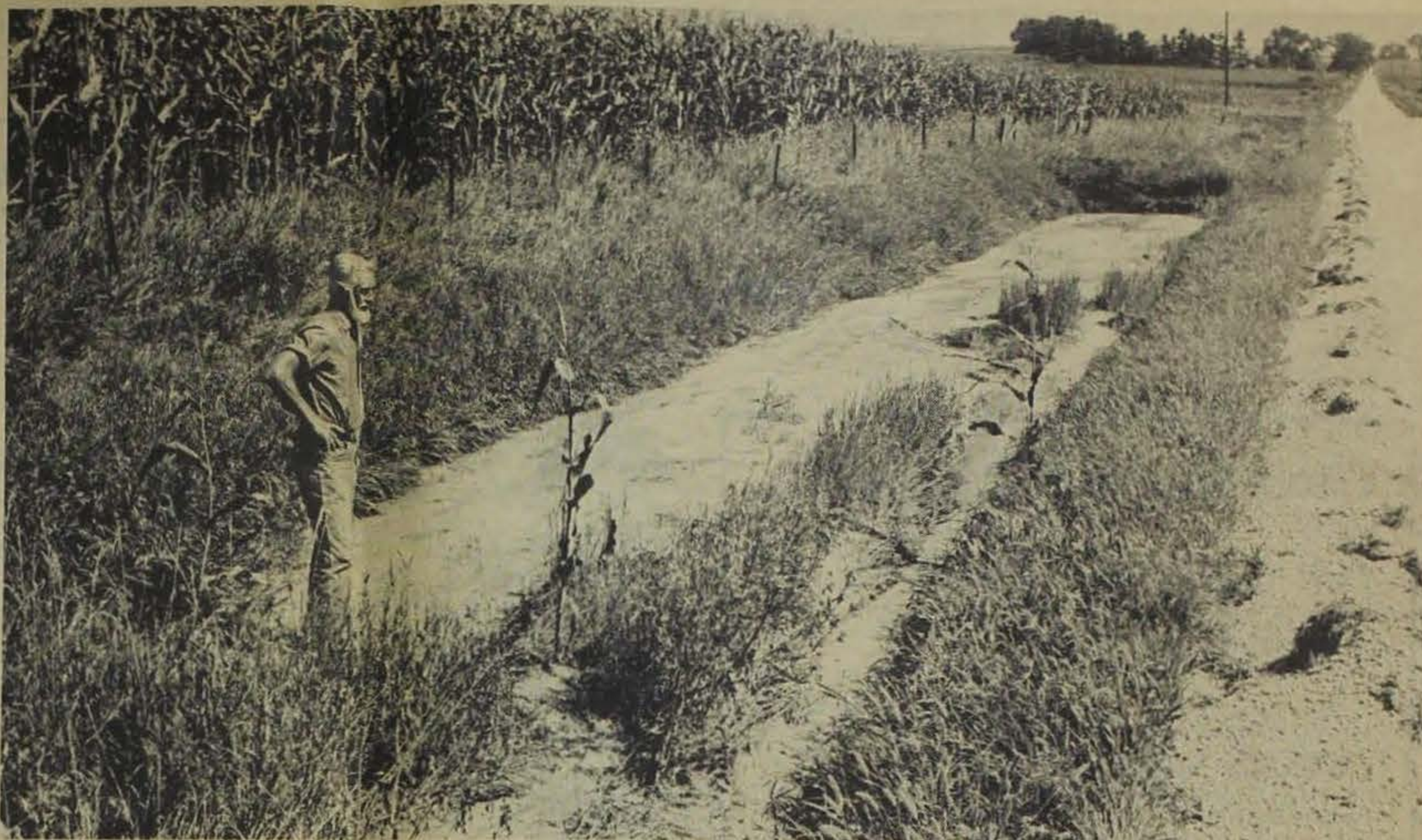


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Silt fan

Clyde Merchant, conservation technician, stands on a silt fan which has been eroded from a nearby corn field. The tragedy here is that the soil is needed on the hillside to

maintain crop production, according to Floyd Peters, district conservationist.

Improving Iowans' quality of life

DES MOINES — Passage of the land preservation policy act, house file 210, set in motion a process that could affect the future quality of life for all Iowans, reports the Iowa Department of Soil Conservation.

The intent of the law is "to provide for the development of land preservation policy recommendations through a process that emphasizes participation and recommendations of citizens and local governments."

During the past year, 99 temporary county land preservation policy commissions have been organized. Each held three public hearings and other meetings to develop recommendations for the Temporary State Land Preservation Policy Commission.

Major concerns to be addressed during

the commission's two-year existence include the ever increasing competition for urban, agricultural and natural environmental land uses. The temporary state commission will also examine the changing roles of the participants in land preservation and development decisions.

The county commissions are comprised of soil conservation district commissioners, mayors and council members of cities and towns, and members of county boards of supervisors.

The 18 members of the commission were elected at district conventions in April. Members include: Ervin J. J. Koos, chairperson, Shelby; Thomas A. Tully, Jr., vice-chairperson, Dubuque; Charles Augustine, Oskaloosa; Kirk Bennett, Mapleton; Jim Bowie, Tipton; Henry DeBoer, Bigelow, Minnesota; George

Golinghorst, Walcott; Donald R. Gorsett, Primghar; Eugene Gray, Webster City; Verle Handy, Ottumwa; Donald Karns, Anita; Jane LaGrange, Vinton; Charles McLaughlin, Britt; Ronald Purdy, Fontanelle; Robert F. Ryan, DeWitt, Elmer Schneider, Riverside; Robert J. Smith, Manly; Robert Stuart, Altoona. Alvin Clare Russie of Des Moines is executive secretary to the commission.

During monthly meetings the state commission will analyze reports and recommendations prepared by the 99 county commissions as well as hear presentations by state agencies with land use responsibilities. Legislative approaches used in other states will also be analyzed by the commission.

Prior to disbanding, the commission is charged with developing a series of

recommendations for the general assembly. Those recommendations must address the preservation of agricultural land for food and fiber; the effect of current laws on land use decisions; guidelines for state agencies for the use of land; and criteria for the designation of critical areas, key facilities and large-scale developments. Also to be considered are ways of controlling urban sprawl and developing an orderly transition from rural to urban uses. All of these considerations must at the same time address the need to preserve private property rights.

The temporary state commission will also recommend the proposed governmental structure, if any, that will have continuing responsibility for state land preservation policy.

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A newly-constructed livestock pond on the Eugene Root farm near Blairstown is shown above. The pond will be fenced to exclude livestock and will make an excellent wildlife area. A stock watering tank will be placed below the pond so that livestock can drink without having access to the pond.

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