Lyon reviews career as commission chair

Russell Lyon

My term as a District Soil & Water Commissioner will expire at the end of 1990. Looking back over those six years I think conservation has made considerable progress. There is still a long way to go.

The 1985 Food Security Act is a start in controlling soil erosion. 98% of the farms in the Tama Soil & Water Conservation District with **highly erodible soil** have a conservation plan.

Spot checks indicate about 50% have implemented the practices scheduled for 1990. We trust that compliance will improve in the next year or two as there is already too much planned for 1995.

I am gratified to observe an increase in grassed headlands and waterways, more contouring and conservation tillage in the district.

State cost share funds have been increased for the 1990-91 year. REAP has allocated money for tree planting and grass seedings. We need applications for this money

There is also new money designated for a watershed north of Otter Creek Marsh. We encourage farmers to inquire at the SCS office for more information on cost share funds.

by Russell Lyon,
Commissioner Chairman

Photo by Mike Schlotterback

Union Grove Lake provides beauty in many ways. One such spot is pictured above. This old stone quarry in all its reflective beauty lies along the northeast side of the lake.

Concentrated efforts in Union Grove area

The amount of conservation work done this year by the farmers in the Union Grove Lake area has been phenomenal. Following is a list of all that has been done to protect the farmland as well as the lake.

ITEM	AMOUNT
Conservation Reserve Program	93 acres
No-Till Planting	439 acres
Mulch-Till Planting	1,181 acres
Contouring	1,212 acres
Critical Area Seeding	6 acres
Grassed Headlands	23,350 feet
Grade Stabilization Structure	1 number
Grassed Waterway	53 acres
Contour Strip Cropping	188 acres
Water and Sediment Control Basin	6 number

This work has vastly improved the resource base in that area. Think of what damage would have been done by all the rain this year without this conservation work.

The work will continue next year. To date we have an estimated workload as follows: 1,100 acres of no-till, 19 acres of critical area seeding, 4 grade stabilization structures, and 77 acres of waterways.

Now is second best time to plant a tree

by Ferd Kvidera

"The best time to plant a tree was 20 years ago. The second best time is right now," says Bill Danker, who lives about a mile and a half east of Traer on Highway No. 8. He doesn't claim to be the author of that statement, but he has followed that advice. As one travels toward the east on the highway, his windbreak of Concolor Fir cannot be overlooked by the traveler. It is not only a thing of beauty, but an effective shelter from cold northerly winds and snow.

When Bill and his wife, Lois, moved on to the farm in 1960, there was a grove of old soft maples and elms which did nothing to break the wind, or stop the drifting snow. Every time the wind blew there were sticks to be picked up, so Danker decided that the trees might as well be cut as it wouldn't make any more of a mess than when the trees were standing.

This was a job strung out over several years, and in the spring of 1970, two rows of Concolor Fir were planted among the old stumps. The following year another row was planted plus a row of honeysuckle. It might have been better to start the trees with the stumps removed and the ground tilled, but instead the area was seeded down and mowed, with the stumps rotting out in a few years and out of the way. The number of trees planted numbers 100.

"The first five years you watch and wish you had done it sooner," but soon another 10 years are gone and the trees are big. Before the evergreen windbreak was giving protection, the house yard and cattle yard were blown full of snow and it seemed to the Dankers that all they did all winter was move snow. The fir trees are now 25 to 30 feet tall, seem to be growing two to three feet a year, and trap all of the snow before it gets to the yard.

The trees were planted 24 feet apart, and Bill wishes that they were 30 feet apart because some of the bottom branches are already touching. Since he has ample room, he is considering planting another row, and possibly two, on the outside of the present evergreens so that they will be giving protection when the present grove becomes more mature and loses needles from the bottom branches. The row of honeysuckle was taken out seven years ago as the trees were already growing against it.

The trees were 18 inches tall when planted, and Danker always watered them well before the ground froze up, using 25 to 30 gallons per tree. After the third year the trees were on their own and managed to nicely survive the past two drought years. He did water some younger trees the last two fall seasons, as he feels that it is very important for the roots to be well soaked up before winter sets in.

Bill credits his late wife, Lois, for taking care of the trees and the yard. She enjoyed flowers and landscaped the house yard with them. All of the present trees on the place were planted by Lois and Bill, and now the shade trees are tall enough so that their shade can be enjoyed on hot summer days.

A dividend from the windbreak, besides protection from wind and snow, is the bird population which uses it. In the winter it is a shelter for pheasants, and a nesting area for summer songbirds. Bill has seen as many as eight pairs of Cardinals using it, and had a number of Mourning Doves nest this year.

1990 crop loans with ASCS

If you are thinking about putting your 1990 crop under price support loan this fall, here are some of the requirements. You must have been signed up for the 1990 feed grain program to seal corn; however, all producers may seal soybeans.

Loan price for corn this year will be $1.52.

Loan price for soybeans will be $4.20 (subject to change). All loans will be reduced by the Gramm-Rudman act.

Only 1990 crop grain may be sealed. All producers must have a Farm Plan in effect with SCS before applying for a loan.

All price support loans mature on the last day of the ninth month following the month of the application date. Interest rates may vary monthly. The monthly interest rate in effect when a loan is disbursed will carry through Dec. 31, 1990. The Jan. 1991 rate will be used for the remainder of the loan.

Farm-stored loans must be stored in a permanent-type structure. We will measure your grain for a fee of $15 for the first bin plus $2 for each additional bin. A sample will be taken to check test weight. Moisture must be around 15% for corn and 13% for soybeans. The quantity for a loan will be 100% for shelled corn and soybeans and 90% for ear corn if we measure the bins. If you bring in your own measurements, we call this a certified loan and you may receive 90% of the quantity of shelled corn and soybeans and 85% for ear corn. On certified loans we will spot check all loans **before they are disbursed.** If you store your grain in a government approved warehouse you must bring in the original warehouse receipt showing that storage has been prepaid through loan maturity.

By state law we must deduct ¼ cent per bushel for corn and 1 cent per bushel for soybeans from all 1990 loans. This money is used for market research and promotion.

If you are adding 1990 grain on top of old grain in a bin, (co-mingling) the old grain **MUST** be measured by us (at your expense) **before** you co-mingle so that we can measure the new grain for a loan. We do not recommend co-mingling with other producers. Please inform us if it is co-mingled to alleviate the possibility of sealing grain twice.

In all cases you are responsible for quality and quantity of grain used as collateral on a CCC loan.

For further information contact the Tama County ASCS

General farm hazards for children

For years, we've believed the farm is a great place to raise children. In many ways, that's true. But farm parents must be aware of the safety and health hazards their children face, such as powerful machinery and tools, chemicals, grain bins and wagons, ponds, and animals.

Iowa Farm Safety Council President William Popendorf said increased mechanization may be increasing the dangers for children. "Machinery causes many injuries and fatalities among children. Many of these injuries are caused by old equipment manufactured prior to safety standards," he said. "But modern equipment may also endanger children because it's easier to operate."

Another reason for more accidents involving children may be economic conditions. A study by Mayo Clinic found difficult economic times means more children are replacing hired help. And more toddlers are playing with less supervision because both parents are working.

The National Safety Council has some safety rules for farm children. Don't allow unsupervised children around farm equipment, chemicals, grain bins, ponds and other potential hazards.

Keep toxic products such as pesticides, medications and solvents in original containers and locked up or out of reach. Keep kids away from work operations involving chemical use and out of places treated with pesticides. Safely dispose of empty chemcial containers promptly.

Take a young worker's physical and mental development into account when assigning jobs. Teach them how to do the job safely and well.

Secure abandoned wells. Educate children about livestock on the farm and make sure they stay away from potentially dangerous animals.

Emke still learning role as commissioner

Dennis Emke
Commissioner

This is my second year as a commissioner and I am still learning about different practices, FSA plans, cost shares, REAP, and many other programs that are available. I would like to thank the staff for a job well done keeping all the different funds and programs straight.

Soil and Water Conservation is necessary for everyone. Water protection practices are not just for the farmer who applies chemicals to his crop but also to the urbanite who has a garden (food or flower) who applies pesticides, fertilizer, etc. Read and follow label directions. And dispose of properly. Ground water protection is everybody's concern. Recycling of paper, glass, plastic, metals, and yard waste are also of concern for everyone.

Soil conservation practices may vary from farm to farm. Whether terraces, strip-cropping, minimum till, no till, buffer strips, or just following the contour, the personnel at the SWCD have the expertise to layout and design. They can also help with programs to share the cost.

Trees and wildlife areas are an important part of every community. Trees enhance the beauty of the community as well as provide windbreaks, shade, as well as food and shelter for wildlife.

by Dennis Emke,
Commissioner

CRP maintenance

Here are a few ways to maintain a healthy, long-lived stand on your 10-year Conservation Reserve Program (CRP) acres:

1. Control all weeds. Spot mowing or spot spraying is a good way to control most weedy areas, leaving the rest of the stand for seed production and wildlife habitat.

2. Mow or spray weeds in a timely manner. Don't wait for weeds to go to seed before controlling them.

3. Reseed when necessary. All acres need a permanent vegetative cover for the life of the contract.

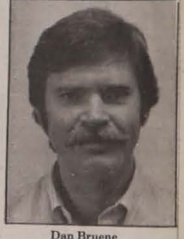
4. Maintain a vigorous stand to insure a good ground cover and good erosion control. Maintenance levels of fertilizer may be necessary. If the vegetative cover declines, apply 30 pounds of nitrogen, 20 pounds of phosphate and 20 pounds of potash per acre.

5. Check with your S.C.S. office before applying animal waste to your CRP ground. We need to include this in your CRP plan.

6. Check with your S.C.S. office before burning your CRP as a weed control/stand improvement practice. This also needs to be included in your CRP plan.

7. Prevent domestic livestock from grazing CRP acres; if necessary, fence.

8. Call us or stop into our office if you have any questions on CRP maintenance.



Dan Bruene
Commissioner

Bruene president of state SWCD

Dan Bruene of Gladbrook is the President of the Iowa Association of Soil and Water Conservation District Commissioners. He also serves as a Tama County Soil and Water Conservation District Commissioner.

Check before fall tillage!

This fall before you do any tillage, check your FSA compliance plan. Your plan may call for leaving more residue on the soil surface than would be left after fall tillage. If necessary, make an appointment with someone in our office for a revision to your plan.

Stanley and Calvin Dostal of Traer have been practicing no-till farming for seven years.

Dostals see good fuel efficiency in use of no-till planting

"It surely makes a difference on the fuel bill, and with the price of fuel going up, it'll make a big difference.

"This is one of the reasons for Stanley and Calvin Dostal's enthusiasm for no-till planting of corn and soybeans. Another reason is that "the ground is as nice as a garden" when it hasn't been worked with a disc or other tillage tools in the spring.

The Dostals have been planting their corn no-till for seven years, and no-tilling soybeans for three. In the past they chopped the cornstalks in the fall, but the wind last winter drifted the pulverized stalks in one field, so they are going to try knocking the stalks down this fall with a harrow and see how that works. Phosphorus and potash are applied in the fall where needed.

Three weeks prior to corn planting, one-half of the herbicide "Extrazine" is applied to the ground with water as the carrier. The corn is planted with a four-row International model 400 planter, with a no-till attachment. Liquid starter fertilizer is applied, so this gives suffcient weight to hold the planter in the ground. After the corn is planted and before it emerges, the other half of the herbicide is applied, using liquid nitrogen as the carrier. Weed control has been good, but the corn gets one cultivation anyway, as the remaining necessary liquid nitrogen fertilizer is then side dressed with the cultivator.

Soybeans are treated much the same way. The herbicide "Dual" is applied at a one-half rate three weeks before planting, and then the remaining half is applied after planting but pre-emergence of the bean plants. The Dostals have another International 400 planter for beans as they plant these in 30 inch rows with the six-row machine. Some tractor wheel weights are added to the planter to help hold it in the ground. Broad leaf weeds are controlled post emergence with the herbicides "Classic" or "Poast." Cultivation is with a Buffalo brand cultivator, but the rows are not ridged up - this is not a ridge till operation.

The fields are all contoured, and with the heavy accumulation of residue on the surface, the Dostal field withstood the heavy rains of this season in good shape. A farm which Calvin is renting had in the past been planted to straight rows, but this spring he no-till contoured by going across the rows of last year.

Stanley has used a minimum tillage program for years - hasn't plowed for at least 20 years, and is very enthusiastic about his results from no-till. "It's working. Some people have been doing it a long time." He feels that everyone should try it, and everybody should be no-tilling corn into bean ground.

Oats may save soil

AMES, Iowa — Cropland left fallow after soybean harvest increases the potential for soil loss between late fall and early spring, according to recent research.

Under a grant from the Leopold Center for Sustainable Agriculture at Iowa State University, scientists with ISU's agronomy department and the U.S. Department of Agriculture's National Soil Tilth Laboratory are investigating fall planting of oats to cover ground left barren after soybean harvest.

Average soil erosion from Iowa's nearly 27 million acres is estimated at 6.5 tons per acre per year by the USDA Soil Conservation Service. Soybean production contributes to more excessive soil erosion than corn partly because it leaves less ground cover during winter. Soybeans also have a loosening effect on topsoil, making it easier for soil particles to detach and erode.

The scientists expect that the fall-seeded oats will protect the soil during the fall rains but will be killed by the first heavy frost. The oat-plant residue will protect soil in the early spring.

Cover crops are nothing new to the field of soil conservation. However, agricultural chemicals are often used to control cover crops in the spring. Using nature as a "burn down" of cover crops reduces the need for farm chemicals while conserving soil. Oats as a fall cover crop could potentially be used in any number of crop rotation schemes without competing for soil moisture in the spring.

Bro suggests simple approach

Franklin Bro
Commissioner

While reading an article in the Des Moines Sunday Register by Rhonda Yoder from Kalona, I was really impressed by the simple life they lead; and how their way of farming effects our atmosphere.

I know we would never go to their life style, but there are many things to learn from them, such as crop rotation, no chemicals or commercial fertilizers, and probably smaller farms and do a better job than what we do. Their farms average from 80 to 160 acres and during the last farm crisis years only 2 farms were sold in the Kalona area.

There was probably as much soil erosion in 1990 as in any other year. The abundant moisture cost Tama County tremendously in soil loss and water pollution. It was really apparent on our field trip to Mark Kouba's and Marley Bacon's that conservation practices really help hold the soil and there are so many things we can do to help hold our soil and most of them are not too expensive.

Stop in at the Soil Conservation Service (SCS) office and talk to SCS experts. They may give you some ideas you'd never thought about.

by Franklin W. Bro

Agriculture's impact on groundwater

AMES, Iowa — To better understand how and to what extent modern farming practices affect groundwater quality, scientists are studying how chemicals move through the soil to water supplies. The studies are funded with a grnt from the Leopold Center for Sustainable Agriculture at Iowa State University.

ISU agricultural engineer Rameshar Kanwar is breaking new ground on the importance of preferential, or "macropore," flow of chemicals through the soil. Macropores are large holes or conduits in the soil created by worm castings, channels left from decaying roots, or columns created by specific soil conditions.

Because macropore are natural tunnels for leaching water and chemicals, they play a crucial role in the fate of agricultural chemicals applied to the soil surface, Leopold Center Director Dennis Kenney said. Different types of tillage and cropping patterns can influence the number and size of macropores in the soil, he said.

Using undisturbed soil cores, Kanwar's group is studing the influence of conventional tillage versus non-till management on the development of macropores and the resulting rate of chemical movement to groundwater supplies.

Soil cores are carefully extracted from field sites without disturbing the pore structure in the soil. The cores are then taken into the lab to assess chemical movement under controlled conditions, a necessry component in understanding chemical movement in the soil.

Keeney said he hopes information from such work will eventually be used to identify cropping practices least likely to contaminate groundwater.

Warranty Deeds

Anthony, David U. & Grace C. to Albina Husak Dt 7-30-90 Tama Township.

Photo by Phyllis Thompson

Contour stripcropping and wildlife habitat area.

Take another look at conservation plan

DES MOINES, Iowa — Iowa landowners who agreed to implement conservation plans to stay eligible for most U.S. Department of Agriculture programs are being advised by the U.S. Soil Conservation Service to review those plans in detail.

"We know in some cases there is confusion about what was written in the plan," said SCS state conservationist Mike Nethery. "We also know many of the plans were written within a short time frame, and that farmers were asked to make decisions that they may want to change."

The plans were "never intended to be written in concrete," Nethery said, adding that the SCS expects to revise thousands of plans in Iowa.

"We want to work with farmers on their soil conservation goals, whether it's for the conservation compliance program or for any other reason," he said. "Farmers have always been able to revise their plans and they can still do that. They need to be looking at those plans now, early in the five-year implementation period for conservation compliance."

The SCS offers flexibility in the methods that farmers may choose for soil conservation plans, Nethery said. But he admits some farmers do not agree.

"If a farmer has excessive soil losses right now, and he or she doesn't want to change anything in their farming methods, they don't see us as flexible," Netherly said. "But a majority of farmers view the plans as reasonable."

"The plans we've reviewed are realistic, from our viewpoint," SCS resource conservationist Jim Ayen said. "What's important is for the farmer who makes those decisions to go back over the plan, to see if he or she has any questions or wants to make any changes. There is time now to experiment with some practices."

Ayen said all the plans have a schedule for application of the conservation work, and the schedule must be followed or revised for the farmer to stay in compliance.

"Conservation compliance is different from past working relationships we've had with farmers from the standpoint that they can lose government benefits by not doing conservation work," Ayen said. "On the other hand, it's similar in that we still want to work with a farmer in any way we can to help develop a successful farming operation that protects natural resources."

The 1985 Food Security Act required farmers with highly erodible land to develop an approved conservation plan for that land by Jan. 1, 1990. The conservation work in the plan must be completed by Dec. 31, 1994. The requirements must be met if the farmer wants to participate in USDA programs.

Photo by Mary Pieper

Contour stripcropping, grass waterways, and gas pipeline construction.

Tree planting program takes root

Providing financial assistance to encourage farmers to plant trees is a goal of a new state program.

"Trees help prevent soil erosion, protect water, improve air quality and provide wildlife habitat and beauty," Iowa Secretary of Agriculture Dale Cochran said. "In many cases, the Iowa Department of Agriculture and Land Stewardship can provide financial assistance for reforestation projects."

The Resource Enhancement and Protection Program, known as REAP, provides up to 75 percent cost-share assistance for planting of windbreaks, establishing woodlands and native vegetation, or improving tree stands. More than $1.3 million has been budgeted for reforestation in 1990.

Reforestation is the most popular state cost-share program. "Only $450,000 was available for reforestation assistance last year and demand was so great that the funds were allocated in just two weeks," Cochran said. "This year we are drawing special attention to the need for more trees in Iowa."

Only farmers who produce crops for commercial use are eligible to receive funds for tree planting. District foresters provide technical assistance to farmers and Soil and Water Conservation districts in selecting appropriate tree types and approving reforestation plans.

They also will advise farmers on how to save trees that are in trouble from insect or weather damage, and funds are available for that purpose.

More information about tree planting assistance can be obtained from local Soil and Water Conservation District offices.

Tractors: focus on children

A recent national public opinion study shows the number one fear of parents is their children will be kidnapped. In reality, accidents are the leading cause of death for children under 16. This is alarmingly true for farm kids.

One big problem is tractors and extra riders. A 1989 Successful Farming magazine survey revealed 95 percent of farm children are riding on tractors by the time they are seven to nine years old, even though only 79 percent of the parents believe children should at that age.

Iowa Farm Safety Council President William Popendorf said parents probably feel a false sense of security having the child on the tractor with them. "But with national accident data showing a lot of injuries and deaths occur when kids fall off equipment while their parents are driving, this practice of the extra rider needs to be stopped," he said.

Another problem with children and tractors is runovers. These runovers usually happen because the driver's view is blocked. Or because children are playing nearby or hiding underneath equipment to be towed.

Iowa statistics during the first half of 1990 show that of children injured or killed, 64 were 13 to 20 years old, 39 were six to twelve years old and 22 were five years or younger. And safety experts estimate almost fifty percent of farm children killed are under age five.

Marilyn Adams is president of Farm Safety for "Just Kids" in Earlham. She said the hazards facing children on the farm are everywhere, and that tractors and other farm equipment are the biggest culprits.

"These children are playing around machinery, in barns and other work areas. Parents need to understand these are not safe playgrounds."

Kadrmas comments on wet season

Pat Kadrmas
Commissioner

I got a good chance to see how the floods affected our fields, roads and streams as I traveled for the census bureau all over this summer.

Dirt roads I used last year were impossible or under water this year. Creeks were wider, ponds bigger and more numerous and ditches a lot wetter.

The rushing water uncovered several old dump sites near road side ditches and creek beds. Road washouts were numerous as well as field gullies and silted in end rows.

The quick fix method of dumping large rocks to hold back our soil, only moved those rocks down the waterways and creeks. The bottom lands all over the county were filled with water, silt and refuse.

Several Iowa towns and cities had dangerous levels of nitrogen in their drinking water, reportedly from flooded farm fields. It is suggested we use less fertilizer to help correct this along with less pesticides & insecticides. This would be sustainable farming which a lot of farmers are now trying.

The new dumping law forbids using roadside dumps like those washed out this year, but we all still need to reduce the amount of garbage and junk, by recycling and wiser buying of less packaged items. Those who have sorted and recycled have to be commended for doing before being forced.

The fields with conservation practices like "No Till", terraces, strip cropping, and contouring certainly lessened the flooding effects.

Farmers or road workers could not deny where the tile were broken as "Mother Nature" gave us the tell tale examples that show that things needed to be fixed in the right way from the top of the watershed to the bottom through fields, waterways across roads into the streams and rivers.

After three dry years we get to thinking we can let up so "Mother Nature changes the mold and show us again "You can't fool Mother Nature" — Yes we have to work with nature to solve our problems with soil loss, water pollution and waste disposal. Let's all do our part to save our land, water and air.

by Pat Kadrmas

Soil Conservation comments

Ferd Kvidera

by Ferd Kvidera
Assistant Commissioner

The public is becoming more and more conscious of the environment, and farmers are becoming more and more conscious of soil erosion, but not a whole lot of people are doing anything about it.

The burning of fossil fuels causes smog, acid rain, etc., but little is being done in government, industry, or the general public to promote the use of cleaner burning fuels from renewable resources. Likewise, many farmers will bounce their combines through eroded fields, caused by the heavy rains of this past summer, and take little time to consider changes in next year's farming practices to stop, or at least slow down soil erosion on their farm.

We're all in this together, but change comes hard for city dweller and farmer alike.

DISTRICT ACCOMPLISHMENTS
FISCAL YEAR 1990
October 1, 1989 - September 1990

District Cooperators	9 No.	
Contour Farming		1,026 Acres
Farmstead Windbreaks		1,514 Acres
Grasssed Waterways		8 Acres
Grade Stabilization Structures		57 Acres
Contour Strip Farming	6 No.	
Terraces		163.5 Acres
Water & Sediment Control Structure		33,700 Feet
Individuals & Groups Assisted	8 No.	
Individuals & Groups Applying Practices	1230 No.	
Tracts with an Approved Conservation Plan	330 No.	
Cropland Acres Treated		17,348 Acres
		15,382 Acres

BUDGETS
July 1, 1989 - June 30, 1990

1M	
Commissioners Mileage, Meals, Hotel	$1,239.88
Office Supplies and Expenses	1,355.40
Printing	83.90
2M	
Clerk and Engineering Aide Salary	$27,591.20
3M	
89-90	
18 Agreements Approved	$67,568.00
3 Agreements Completed	
1990 REAP	
9 Agreements Approved	$13,095.00
2 Agreements Completed	

Weather folklore. . .or is it?

Years ago, folks didn't have radios, TVs, newspapers and a computerized National Weather Service to give them the forecast. When they wanted to find out about the weather, farmers turned to observing nature instead.

Most observation forecasting comes from watching the sky or plants and animals. While some sayings tend to be pretty much nonsense and perhaps a little wishful thinking, others hit the prediction right on the nose just about every time.

Looking for red skies, watching sheep huddle, counting the number of chirps a cricket makes or just plain taking into account what your game leg says — well, you've known they've worked for a long time, but did you ever know why?

Red sky at night, sailors delight. Red sky at morning, sailor take warning. A red sky — acutally pink is the true color to look for with this saying — comes from the sun's rays shining through a high concentration of dust particles. So a red evening sky is a sign to expect fair weather in the next day because weather generally moves from west to east, and the sun is shining through dry dust particles in the west. On the other hand, if the morning sky is red, that means the dust has moved on, probably because of a strong wind the night before, and the humidity is probably going up.

When sheep gather in a huddle, tomorrow we'll have a puddle. Sheep are especially sensitive to small weather changes because their wool traps air as insulation. Since sheep huddle to keep warm, they are a good indicator of the coming cool air and possible rain.

Bones, corns and teeth ache when a storm is coming. Actually badly healed bones and the like can as living barometers — gas can build up around them when the outside pressure falls, thus causing the ache.

Crickets are the "poor man's thermometer." Count the number of chirps in 15 seconds and add 37. That's the correct temperature in degrees Fahrenheit — where the cricket is sitting.

When the dew is on the grass, rain will never come to pass. Dew is formed when early evening air is chilled as the earth loses its heat. For this to happen, there can be no clouds or wind. If that's the case, it's a good bet that the following morning will be fair.

When the leaves show their undersides, be very sure that rain betides. Actually this saying is a little after the fact. By the time leaves on certain trees (oak, cottonwood, poplar, sycamore, lime and silver maple) are curling up, chances are you'll already be hearing thunder — which tells you the same thing with a lot less effort!

Swallows and bats fly lower before a storm. You'll begin to notice this about 12 hours before the storm breaks. When the barometer begins to fall before a storm, swallows' and bats' sensitive ears force them to fly lower to find the same air pressure as before.

When the wind is in the west, it suits everyone best. A wind in the south, has rain in her mouth. When the wind is from the east, neither good for man or beast. In the west wind saying, change "everyone" to "most people" and you'd be more accurate. With the exception of the West Coast and western Florida, a west wind has been blowing across land, and is therefore generally dry. Hence, fair weather. A southwesterly wind, however, is usually just the opposite. Since these winds are warmer and more humid, precipitation usually falls when they blow north and are forced to go up over colder air masses. (Exception — the Rocky Mountain area.) An easterly wind is often associated with a low pressure system and can bring the most severe weather on the continent. There almost never is a wind directly from the north.

Clear moon, frost soon. If you see the moon clearly, that means there are no clouds either to cover up the moon or to hold the heat close to land.

If the squirrels are fatter and corn husks thicker, be ready for an extra cold winter. Or, the blacker the coat of a woolly worm, the harder the winter. Most farmers have their own methods that they swear reliably predict the length and severity of the winter (especially in more northern areas of the country). So far scientists are having a tough time proving there's any truth in these long range weather lore sayings.

Buffer strips reduce soil loss

Rebuilding the areas that surround Iowa's streams and rivers is important to sustainable agriculture, according to Iowa State University forestry professor Richard Schultz.

These buffer strips — also known as riparian zones — reduce soil loss, improve water quality and stabilize drainage system banks, Schultz said.

When the pioneers settled in Iowa, they cut down the woodland corridors that acted as natural buffer strips to obtain more land for crop production. These losses resulted in reduced ability of the riparian zone ecosystem to assimilate chemical and soil losses from agricultural lands, Schultz said. As the ecosystem's cycle was disrupted, wildlife numbers also declined, he said.

In addition, farm chemical and fertilizer use increased fourfold since 1960, Schultz said. And some present farming practices fail to stop soil and chemicals from leaving farmland, he added.

"Today's concerns about soil loss, global warming, ground and surface water contamination must be addressed by both the agricultural and non-agricultural communities of our state," Schultz said. "We can modify the management of corridors along creeks and streams to obtain improved benefits."

Buffer strips keep water chemicals and sediments from moving off fields so farmers do not lose valuable nutrients, along with preventing surface and groundwater pollution, Schultz said.

Planting a combination of perennial grasses, flowers and woody vegetation as buffer strips along streams improves wildlife habitat. Buffer strips with trees are especially valuable because trees reduce atmospheric carbon dioxide by storing carbon and providing alternative sources of renewable energy, Schultz said.

The basic buffer strip design consists of multiple rows of trees and shrubs adjacent to the stream, with an additional filter strip of perennial grasses. As the size of the stream or the affected watershed increases, the width of the buffer strip must be increased to maintain its effectiveness, Schultz said.

The minimum width of a buffer strip is 33 feet. Spacing between rows and trees within a row varies with plant species and objectives. Commonly, plantings are eight to 10 feet between rows and four to six feet between trees within the row. Shrubs are planted closer together.

Tree and shrub species and planting design varies according to the site and the ultimate use of the woody vegetation. Fast growing hardwoods such as cottonwood, hybrid poplars, silver maple and green ash can be used on a variety of bottomland sites.

The fast growing hardwoods are harvested in the winter and sprout vigorously in spring, producing more growth than the original stems, Schultz said. As a result, they continually absorb agricultural chemicals during the growing season. The trees can be harvested for fuel within four to six years or be left longer to produce lumber and fuel.

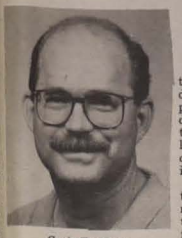
It also is possible to produce high quality oak and walnut logs by planting a faster growing species such as green ash in the outside rows, Schultz said. The faster growing species will not compete with oak or walnut trees because trees like ash can be harvested more often, he said.

"However, remember that the high quality species are more site specific and should not be planted in poorly drained soils," Schultz added.

Shrub choices include ninebark, red-osier dogwood, nanking cherry, serviceberry and others. The selection of shrubs should depend on site conditions and wildlife attraction, Schultz said. He recommends using several different species on one site.

Assistance in designing and establishing buffer strips is available from local Soil and Water Conservation District offices, district foresters, the Iowa Department of Natural Resources and Iowa State University Extension Service.

Soil conservation projects announced



Craig Tordsen

TOLEDO, Iowa — Farmers living in counties surrounding Union Grove Lake and Blackhawk Lake will be able to enhance farm productivity and control soil erosion through services provided by two new state-sponsored projects.

The Union Grove Lake Watershed Project and the Blackhawk Lake Watershed Project are cooperative efforts involving a number of state agencies, including Iowa State University Cooperative Extension Service and the Soil Conservation Service. The federal government allocated $135,000 for the first year of the five-year projects, which are administered by the United States Department of Agriculture through the state of Iowa.

"The purpose of the projects is to offer suggestions to improve farming practices and increase profitability," said Craig Tordsen, an Iowa State University Extension Service employee who coordinates the project. "We will look at crop recordkeeping and provide weed, nutrient and tillage management services."

The projects were developed in response to concerns about soil erosion in the lakes' watersheds, which include many counties, including Sac, Tama, Marshall and Carroll. Union Grove Lake is a 118-acre lake in Tama County. the 925-acre Blackhawk Lake is located in Sac County.

Both lakes have experienced water quality problems related to soil erosion from surrounding cropland. The erosion exceeds the state guideline, reaching 50 tons per acre in some places.

As coordinator, Tordsen will contact area farmers to learn about their operations and ask for their participation. He also will collect well water samples for analysis, conduct soil sampling and review conservation plans.

Later, other farm management services also will be offered. There is no charge to farmers during the first two years of the projects.

Other agencies participating in the projects are the Agricultural Stabilization and Conservation Service, the Iowa Department of Agriculture and Land Stewardship and the Iowa Department of Natural Resources.

For more information, contact Tordsen at the Tama County Extension Service, (515) 484-2703.

Grazing, *Continued from page 7*

technology to make the system workable. Much of the new technology on fencing, although initially expensive, provides producers the chance to increase the utilization of their pastures without building heavy permanent fencing systems. No livestock fences can exist without maintenance, but some of the new fencers reduce the problems of shorting out.

Controlled grazing systems don't just happen overnight. They take time to plan out the system, the cells, the water source, etc. Although it is not difficult, it does take some time. If anyone would like to visit about controlled grazing or laying out grazing systems, information and assistance is available from the Tama County Extension Service. Call 484-2703, or stop by the office.

Food Security Act - Good News, Bad News

The good news is that 99% of the farmers in Tama county developed food security act plans before the December 31st deadline. The bad news is that there are only four crop years left in which to apply all of the conservation practices called for in the plans.

As of September 30, 1990 there are 207,000 acres still needing additional conservation treatment. Tama county farmers plan to treat those remaining acres with:

129,000 acres of conservation tillage

102,000 acres of contouring

2.8 million feet of field borders

6,100 acres of grassed waterways

5,000 acres of strip cropping

63,000 feet of terraces

With the limited staff available in Tama County many of these practices will have to be installed and maintained by farmers themselves. For practices like conservation tillage and field borders, farmers can get ideas from neighbors, farm publications, field days, and demonstrations on how to leave crop residue on top and how to seed down the endrows.

For practices like contouring and grassed waterways there are "How To" videos available for checkout at local cooperatives that show how these practices are applied. For the technical and expensive practices like terraces, grade stabilization structures and bigger waterways, the field office staff is available for layout and design work.

Most of the farms in Tama county have some form of the following (simplified) conservation plan or erosion control needs.

1) crooked rows (contour)

2) trash on top (conservation tillage)

3) grass in the draw (grassed waterways)

4) grass on the ends (grassed field border)

5) grass in the middle (grasses in strips or rotation)

Since 95% of the plans call for conservation tillage a warning is in order. Good conservation tillage begins in the fall as you harvest. Examine the weed pressure, slopes and residue amounts of each field or part of field. Till accordingly. In other words if slopes are steep and yields are low do not till, or till **very gently.**

Once the residue is destroyed in the fall, there is no way to get it back next spring.

Farmers in Tama County have shown an interest in conservation by getting their plans developed in a very short time. Over the next four years those paper plans will need to be applied to the land to reduce soil losses and to improve this place we call home.

REAP cost-share funds available

Melody A.C. Bro
State Technician

The Resource Enhancement and Protection (REAP) Act passed in the 1989 session of the Iowa Legislature provides Iowa landowners with cost-share funds to help conserve our state's natural resources.

State REAP funds are available for cost-sharing certain practices through the Tama County Soil & Water Conservation District, (SWCD).

All of the practices, except for stripcropping, have 20-year maintenance agreements. There is a 5-year agreement for stripcropping.

Seventy-five percent of approved costs can be cost-shared for these conservation practices: critical area seedings, field borders, filter strips, pasture and hayland plantings, planned grazing systems, farmstead windbreaks, field windbreaks, timber stand improvement, tree plantings, rescue treatment in tree plantings, and site preparation for natural regeneration. 50% of approved costs can be cost-shared on animal waste management systems.

Cost-sharing on farmstead and field windbreaks will not exceed $12/tree and $2.25/shrub. The fencing of these windbreaks will not exceed $8/rod and excludes boundary and road fences. Total cost-share for the establishment and fencing of a farmstead windbreak will not exceed $700/windbreak. There is no total dollar limit on field windbreaks.

Timber stand improvement requires a minimum of 5 acres. Cost-sharing on this practice will not exceed $75/acre for thinning, pruning of crop trees, or releasing seedlings or young trees. Fencing of these areas will not exceed $8/road.

Tree planting includes cost-sharing not to exceed $120/acre for site preparation and $365/acre for establishing ground cover, trees, the planting operations, and weed and pest control. Fencing will not exceed $8/rod. There is a 3 acre minimum.

Rescue treatment cost-share will not exceed $60/acre to establish alternate cover for competition control. A one-time payment for rodent control up to $15/acre and fencing up to $2/rod are also eligible. Cost-sharing will not exceed $365/acre for plantation replanting including establishing ground cover, trees, tree planting, and weed control. This practice has a 3 acre minimum.

Site preparation for natural regeneration has a 3 acre minimum. Cost-sharing will include site preparation and fencing.

All practices must be approved prior to application. The availability of some of these funds is limited. Many of the forestry funds must be spoken for before December 31, 1990 or be returned to the state.

For more information and an application, contact the Tama Soil & Water Conservation District office at 203 W. High, Toledo, or by calling 515/484-2702.