

Fayette Soil Conservation District Annual Report

The Oelwein Daily Register.

ISU Agronomist Explains Tillage Trends

BY M. AMEMIYA,
Extension Agronomist
For The Oelwein Daily Register

AMES — Beginning with the American Indian's practice of using a small amount of tillage to place a seed, and perhaps a fish, in a hole, the intensity of tillage has steadily increased until the present day routine of plow, disc and harrow, or conventional tillage was reached. At the moment, however, it appears that the trend is being reversed, as indicated by the great interest in various reduced tillage methods, with so-called O-tillage and punch-planting techniques at the end of the scale.

The evolution of conventional tillage is somewhat enigmatic when one considers the amount of wasted energy involved. Much work is expended to loosen an entire field, only to follow this action by expending additional work to seemingly compact most of the field, and thus, only a fraction of the total field is planted. One reason this has come about is the ease with which plow can be applied to the soil without discomfort to the tiller. The second reason for much of the conventional tillage operations is that, in the past, the soil condition that is pleasing to the eye and quite impressive to friends and neighbors. Another reason for much conventional tillage is that of a fixed routine, where, in the same series of operations being conducted year after year, whether needed or not.

Today with increasing farm size, and increasing demand for farm products, a dwindling labor supply, a realization of the value of time, and decreasing profit margins, farm operators are seriously looking toward reducing inputs attributed to tillage, which make up more than one-half the cost of producing a crop. In addition, there is an increasing awareness of farming practices that are compatible with principles of soil and water conservation.

At the present time, many farmers are again seriously questioning the need for plowing. This interest in eliminating the plow has stimulated the development of no-till machines and systems, each with the intent of reducing the amount and intensity of tillage. Some systems combine primary and secondary tillage; others combine tillage and planting operations, including the application of fertilizers and other agricultural chemicals.

In many areas, the traditional implements such as the mold board plow, tandem disc, spike tooth harrow are being eliminated or replaced by chisels, sweeps, or rotating blades. In order to evaluate tillage alternatives, the zone concept of tillage becomes a convenient tool for examining the desired soil conditions that tillage is expected to produce in a row crop culture. In this concept, the soil is subdivided into two zones: 1) the row or seedling environment zone, that is, the area immediately surrounding the seed and seedling roots, and 2) the inter-row or water management zone or the relatively large area between the rows.

With conventional tillage, the same physical condition is created

Asks Why Schools Fail To Teach More Conservation?

Note: Article from the Iowa Conservationist.

Daily we read in the newspapers and hear on the television about the world's problems—the war in Vietnam, overpopulation, nuclear weapons, the space program, and on and on.



Dr. Amemiya
Appointed To
Extension Post

AMES — The appointment of Dr. Minoru Amemiya to the post of Extension Agronomist with the University Extension, Iowa State University, has recently been announced.

Dr. Amemiya has been an associate professor at Iowa State since 1960 where he served as research soil scientist in the area of soil management with particular emphasis on tillage and soil conservation.

Dr. Amemiya, a native Californian, received his B.S. degree from the University College at Berkeley, and his M.S. and Ph.D. from Ohio State University. He served in the military intelligence branch of the U.S. Army from 1944-1947. Prior to his coming to Iowa State, Amemiya served for eight years with the Agricultural Research Service and Colorado Experiment Station at Grand Junction, Colorado, doing experimental work in drainage, reclamation, and management of saline and alkali soils.

He is affiliated with a number of professional organizations among which are Soil Science of America, American Society of Agronomy, Soil Conservation Society of America, American Association for the Advancement of Science, Western Society of Soil Science, Sigma X, and Gamma Sigma Delta.

Dr. Amemiya and his wife, Grace, have two sons and will continue to make their home in Ames.

As Extension Agronomist, Dr. Amemiya will serve in an advisory capacity with the State Soil Conservation Committee. The members and staff welcome Dr. Amemiya and look forward to a pleasant and productive association.

In our schools many of the curricula have been annotated, and fantastic educational programs have been set up to meet the demands of the social pressure, problems, and situations. Political science classes, world history and current world events courses, biology, physics, and all the natural science programs have been revamped to cope with most of the "really new" world.

But daily we must read about water, air and land pollution, about a diminishing wildlife population, and a disappearing "Americana." Why, then, don't our schools meet these demands that essentially are in our own backyards? At what cost, meeting the demands of the more world-wide topics?

Perhaps it is because Conservation Education, the label for these subjects, is a pretty nebulous topic. Where, or in what department does it fall? It can be a subject under the physical sciences, and at the same time, part of the humanities, specifically political science or government.

So then, how does an individual instructor begin to teach this tremendously large field in its proper category and with the proper slant?

Simply, he can't at least not by himself. Conservation Education must begin with an attitude, and it must begin on the elementary level and extend through the senior high grades.

Then, couple that attitude with an awareness—a simple knowledge of the complex world of nature, which would develop into a more complete study of all the interrelated variables of natural resources.

To set up a series of studies right now, ranging from the elementary to senior grades, would be feasible and, to some people, essential. However, certain steps must precede an arrangement of this sort, this actual workbook or "study guide" approach.

First, community and regional concern must support a program of conservation education. Public and parental awareness and concern can spur the student to a better attitude and higher interest. From this general concern, our colleges and universities must prepare the teachers in many departments to effectively teach conservation and all its aspects.

Without public empathy to programs of conservation education, an individual teacher cannot possibly hope to succeed on a large or small scale; a few destroyers together will find the going rather difficult.

When the current curricula in our classrooms accentuate a world of turmoil, with no apparent solution for it, one begins to question why that same school just barely introduces the problems and possible solutions that directly affect each individual. The few teachers, parents, organizations, and interested citizens who now support conservation education are doing a commendable job. They can be helped by the federal source of the spark behind a total effort—awareness attitude, to begin to act.



MEMBERS OF THE Fayette Soil Conservation District Commission met in West Union recently to plan for the 1968 Spring, summer and fall work projects. Included were, 1 to 6, seated: Frank Thyer, and Cleve Bennett, assistant commissioners; Alfred Stewart, and Albert Bodensteiner, commissioners; and Lois Heick, district clerk. Standing: Howard Boyle, Conservation technician; Lyle Jackson, district conservationist; and Leslie Anderson, Commissioner. Not present: Paul Schuchmann, Jr., assistant commissioner.

Weed Killer Aids In New Wildlife Management Hotel

MIDLAND, Mich. — One described as "the nation's largest outdoor hotel," the Malheur Wildlife Refuge in remote southwestern Oregon is a transient home to hundreds of thousands of wild fowl each year. These nonpaying customers are lured by free meals, a refuge of tranquility, and a refuge of tranquility.

Apparently the Malheur Wildlife Refuge has a good name in the bird world. Many bird travelers believe it is one of the best places to go for bird watching year after year. One biologist banded 1,400 birds of more than 60 species ranging from flycatchers to stately cranes and swans in one three-month period.

The bird hunters cover 181,000 acres of shallow lakes, marshes, meadows and sagebrush-covered prairie. It also supports 20,000 head of cattle and numerous antelope and big wild animals in good feed years.

Maintaining the delicate ecological balance that permits both ducks and cattle to flourish on the same ground is a critical management task for longtime refuge manager John Schaff and his crew of skilled assistants. There must be cover and feed for the birds, and the cattle must be kept from overgrazing the land.

Hoofbeats came first. This was expensive and ineffective. It was followed by 2,4-D which helped but wasn't the final answer to the eradication of this tough, deep-rooted perennial weed.

Now, with a mixture of Tordon and 2,4-D herbicide (labeled as Tordon 212 Mixture, Schaff's crew has discovered that they can economically clean up Canada thistle at one pass. They have been using Tordon for five years and have discovered that this powerful herbicide is very effective against Canada thistle and does not harm the birds.

With the grain they planted.

Of these weeds, the Canada thistle proved worst since it spreads rapidly and crowds out desirable forage. In addition to sapping the water that is the lifeblood of the area, thistle killing is given high priority at Malheur Refuge.

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Conservation Fund: Congress Agrees On Money

Land and Water Conservation Fund: After long delay, Congress finally agreed on a means to pump new financial blood into the faltering Land and Water Conservation Fund, the chief federal source of money for federal, state and local acquisition and development of national recreation areas. In a bill (S. 1401) amending the 1965 law establishing the Fund, Congress guaranteed that the Fund shall receive income of \$200 million for each of the five fiscal years beginning July 1, 1968.

In each of its first three years, ending December 31, 1967, revenues earmarked for the Fund averaged a little more than \$114 million. The Fund was falling far behind expectations and needs. And states, which receive 50-50 matching grants from the Fund, were hard-pressed to meet their own needs. (See CF Letter of March 15, 1968.)

Now Congress has said that, to the extent existing revenue collections do not reach \$200 million a year, the difference will be made up from Outer Continental Shelf oil and gas lease revenues. (As originally introduced, S. 1401 would have provided the Fund with an estimated \$3 billion for the five-year period rather than \$1 billion.)

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Pollution School Scheduled

AMES — A three-day Water In-Depth Equipment will begin Feb. 4, 1969, at the Hotel Savoy in Des Moines, according to Ted Willich, Iowa State University extension agricultural engineer.

More than 300 contractors and equipment suppliers involved with well construction, pump and water system installation are expected to attend, Willich reported.

The conference program will consist of sessions on business practices such as financing, bookkeeping and cost accounting. Other meetings during the conference will deal with construction and installation practices, codes, legislation and pollution control.

Speakers and panel participants for the programs include eight from ISU and other state agencies, 14 water and industry contractors and equipment suppliers and four speakers from out of state.

The National Water Purification Foundation, Jay Lehr, executive director of the National Water Well Association, W. C. Hess, executive vice-president of the Water Conditioning Association, International, and geologist W. L. Jonmann.

The Iowa Water Well Association and the Iowa Water Conditioning Association, co-sponsors of the conference with the ISU Cooperative Extension Service, will hold association meetings during the conference.

1968 Annual Report Fayette Soil Conservation District

DISTRICT GOVERNING BODY

Alfred Stewart, Oelwein	Chairman
Albert Bodensteiner, West Union	Commissioner
Leslie Anderson, Castalia	Commissioner
M. C. Vangnessen, Fayette	Secretary
Cleve Bennett, West Union	Assistant Commissioner
Paul Schuchmann, Jr., Arlington	Assistant Commissioner
Frank Thyer, Randolph	Assistant Commissioner

DISTRICT EMPLOYEES

Lois L. Heick	District Clerk
J. L. Cline	State Aid (Part Time)
U.S.D.A. SOIL CONSERVATION SERVICE	
Lyle F. Jackson	Work Unit Conservationist
Howard K. Boyle	Soil Conservation Technician

DISTRICT ACCOMPLISHMENTS
July 1, 1967 to June 30, 1968

	Number	Acres
District cooperators	40	8,518
Soil and Water Conservation Plans	28	6,817
Conservation plans revised	5	1,380
Farms served	474	
Farms applying one or more conservation practices	278	

MAJOR PRACTICES APPLIED

Conservation Cropping Systems (acres)	5,207
Contour Farming (acres)	1,242
Crop Residue Use (acres)	9,121
Inversions (feet)	1,600
Farm Ponds (number)	7
Field Border Planting (feet)	58,994
Grade Stabilization Structures (number)	17
Grassed Waterways (acres)	631
Pasture Improvement (acres)	102
Contour Strip Cropping (acres)	33
Terraces (feet)	23,337
Ties (feet)	70,357

HIGHLIGHTS OF DISTRICT ACTIVITIES

The district commissioners held meetings each month to conduct the business of the district. This includes plans and preparation for various events that were sponsored by the district, in addition to reviewing all new cooperators, conservation plans and revised plans.

To keep the public informed of soil conservation progress in Fayette County, 30 news stories and 31 radio releases were sent out. In addition, 3 contents, and 15 meetings were held.

Dues were paid in full to the Iowa and National Associations of Soil Conservation Districts.

Alfred Stewart attended the Annual Short Course for Soil Conservation District Commissioners at Ames.

The district's annual meeting dinner and election were held on March 21st at the Fayette Catholic Church. The Rev. Andrew Olsen, Strawberry Point, was the speaker. Alfred Stewart was elected commissioner for a six year term.

The Soil Conservation Speech Contest was held March 18th at the North Fayette County Community School, West Union.

Lindsay Scott was third place in the regional speech contest. Soil Stewardship material was distributed to all citizens in the county.

Fayette Soil Conservation District entered the 1968 Good Year Contest.

Mrs. Bernice Woodson, Hawkeye, attended the Iowa Teachers' Conservation Camp.

Earl Kerker, Work Unit Conservationist, was transferred to the Dubuque Soil Conservation District June 3. Lyle Jackson took over the Fayette County Work Unit.

Fayette District was second place in the northern division of the 1967 Good Year Contest.

The district's Soil Conservation Achievement Awards contest was held as follows: Division I—Family operated farms, Cleve Bennett, West Union, owner, William Bennett, Elgin, operator; Division II—non-family operated, Stanley Ney, Osage; Outstanding Conservation Teacher, Virginia Meek, West Union, Elkhart.

A tour of conservation practices was held in September to show some of the most recently completed conservation projects in the county.

Alfred Stewart, Albert Bodensteiner, and Lois Heick attended the Annual Conference for Soil Conservation District Commissioners on September 15, 16, 17 at Mason City.

Mary Kubens, Fifth Grade Teacher from North Fayette County Community School, West Union, attended the Teachers Workshop Conference held at the 4th Camp near Luther, Iowa in October.

A dinner was held December 10 at the Humphrey Cafe, West Union, for the Soil Conservation Achievement Awards winners. Glenn Miller, Fayette, entered the Regional Safety Speech Contest held November 18 at the SCS Office, Elkhart.

Fayette District signed the Memorandum of Understanding between the Forestry Section, Iowa Conservation Commission, and the Fayette Soil Conservation District.

FINANCIAL STATEMENT
July 1, 1967—June 30, 1968

IM Budget	
Commissioners' travel expenses to commissioners' regional and state meetings and other travel in the County on District Business	\$316.03
Office Supplies	39.39
Printing and Stationery	1.38
Office Expense	23.15
Meeting Expenses	3.00
Total	\$382.95
2M Budget	
Salaries and Travel for Clerk and Technician	\$5,415.67
Equipment	
Commissioners' Revolving Fund	\$293.50
Balance on hand, January 1, 1968	\$81.44
Receipts January 1, 1968—December 31, 1968	
Total Funds Available	\$75.34
Miscellaneous Expenses	\$27.72
Balance on hand, December 31, 1968	\$247.62

ACKNOWLEDGEMENTS

The District Commissioners want to thank many organizations that have assisted the district during the year. Among these are the U.S. Soil Conservation Service, Agricultural Stabilization and Conservation Service, Extension Service and Farmers Home Administration. State organizations assisting the district are the State Soil Conservation Committee, Iowa Association of Soil Conservation District Commissioners, and the State Conservation Commission.

The newspapers and radio and television stations serving this area have made a valuable contribution by giving publicity to activities of the district.

We would also like to thank the firms doing business in the county whose contributions made possible the printing and distribution of this report.

Respectfully Submitted, Fayette Soil Conservation District
Commissioners: Alfred Stewart, Chairman, Albert Bodensteiner, Leslie Anderson.

Tree Cover For 2,000 Iowa Farms

DES MOINES — Farmers in Iowa planted more than 2,000 acres of trees under the Agricultural Conservation Program during the 1967-68 tree planting season, according to Fred McLean, chairman of the Agricultural Stabilization and Conservation Service.

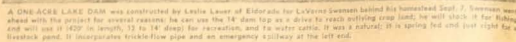
Approximately one third of the plantings were for forestry purposes and the others for wildlife and shelterbelt purposes which offer little, if any, monetary returns to the farmer.

Under ACP, the public shares with farmers a part of the cost of planting trees and of other soil, water, woodland and wildlife conservation measures.

During the more than 30 years since ACP was first authorized, farmers in Iowa have planted more than 19,000 acres of trees under the program.



ALBERT BODENSTEINER, soil conservation commissioner, right, presented Soil Conservation Achievement Award for the best farm conservation practice team within the district during 1968 to Cleve Bennett and his son, William "Bill" Bennett. The two men farm near Elgin and are assisted by their wives, Judy (Mrs. William) and Fernie.



MOINES—Samuel M. Switzer, of Nevada, was hired as a pilot by the State Conservation Commission.

A current officer pilot in the National Guard and former aviator, Switzer began his work with the Commission Jan.

[illegible]

Approved Vendors

NOTE — Farmers frequently can purchase orders from the Santa Clara County ASCS Office for conservation materials and services for use in paying contractors' charges directly for the Federal Government share of the cost. For more information, contact the ASCS office.

chairman of the Agricultural Stabilization and Conservation Committee, Lee Mail notified suppliers of available materials and services to purchase orders may be sent only for approved vendors.

Information about requirements approval is available from the local ASCS Office.

Individual businessmen or representative of a firm sign an agreement designed to acquaint them with their responsibilities and provide a contractual understanding between the vendor and the committee. The agreement is subject to approval by the selected county ASC Committee.

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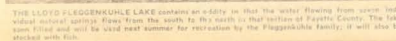
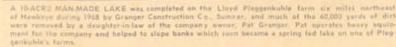


Industry & Agriculture

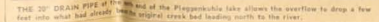
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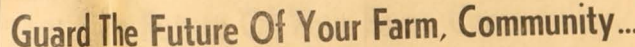
By Kenneth K. Kittleson
Soil Scientist, Decatur

Local soil scientists were signed to work in other counties.

DES MOINES — Official ground-breaking ceremonies were held Dec. 11 at the site of the new Conservation Training Center at Springbrook State Park north of Guthrie Center.

Dr. Keith McNairten, Iowa Conservation Commission vice chairman, was the featured speaker. Fred A. Prieewert, director, Iowa Conservation Commission, and Bernard Clausen, biology professor, University of Northern Iowa, were also on the program.

The Training Center will house the annual Iowa Teachers Con-



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Soil Management School

ELKADER — Causes and prevention of soil and river pollution were discussed at a meeting held Dec. 18 in Elkader according to County Extension Director Jim Hirsch.

"Pollution of wells and rivers will increase in Clayton County unless preventative measures are taken," Hirsch said in announcing the meeting. "Pollution is basically a people problem that can be stopped by people if they really want cleaner water," he added. The meeting was held at the Municipal Building in Elkader. The Extension Service specialists speaking at the meeting were: Ted Wilrich, an agricultural engineering specialist in water pollution from Iowa State University, and Wayne Dietz, a soil management specialist from the Dubuque Area Extension Office. Dr. Wilrich currently serves as chairman of the agricultural advisory committee to the Iowa Water Pollution Control Commission and Dietz was employed by the Soil Conservation Service for many years before recently joining the area extension staff.

Water pollutants of all types were discussed, but potential pollutants of agricultural origin such as sediment, fertilizer, pesticides, and animal wastes, were emphasized at the meeting, Hirsch said. This will include pollution causes, damages, preventative measures, and existing and proposed regulations as they pertain to crop and livestock production.

Schools

(Continued from Page 9)
ve problems that exist in our own backyards.

The difficulty in beginning the concrete, classroom approach can be solved somewhat by simple interest. When educators know that there is a real concern on the part of the majority of the citizenry, their responsibility to the future generation of leaders will be emphasized and they will know that their efforts will be worthwhile.

It takes so little from each individual—a comment to a teacher organization, an informal discussion with sportsmen, a "nature activity" to spark a child's interest and curiosity. These become the beginning, the idea behind action, for a regional and then, statewide movement for proper, concrete and current conservation education.

When it takes this small an effort, why must so few be the only ones to be vitally concerned about the future of our natural resource heritage that so desperately needs a total, concerned public—right here, right now?

Agronomist

(Continued from Page 9)

in both zones, with the primary concern centered around the planted crop. In other words, the soil is tilled as if it were a gigantic seedbed. To achieve a sum of corn and vigorous early growth requires one kind of environment. To have fast water absorption, to reduce erosion and discourage weed growth, requires another.

Many tillage alternatives available today are designed to produce different conditions in the two zones.

In evaluating tillage methods the farmer should ask himself the following question: 1) Does the method provide an adequate seedbed for germination, emergence, and early plant growth. 2) Does the method provide for sound water management. Does it create soil conditions necessary for the control of erosion by water and wind. 3) Does the method provide for the management of plant residues of the preceding crop. 4) Does the method have provisions for replacement of plant nutrients, especially phosphorus.

In addition, the farmer certainly must consider such non-agronomic factors as equipment investment, timeliness of operations, and system flexibility.

Conventional tillage produces the smoothest and firmest seedbed resulting in good stands and yield, but does not create conditions most conducive to water intake and erosion control. Equipment for conventional tillage is well developed and readily available on most farm units.

But, conventional tillage involves a large number of operations and appears to be the most costly method. However, it is the most flexible, leaving a greater margin for errors that can be corrected. Non conventional methods can produce the same good stands and yields if used properly and under the proper conditions. At the same time, most non-conventional methods favor water intake and erosion control. They require fewer number of operations because of which flexibility is reduced.

The closer a method approaches the once-over ultimate, the more rigid the system becomes, and the more judgement the operator must exercise to achieve success. A rigid system may have serious limitations, thus more than one method may be necessary to fit different conditions, even on a single farm.

The farm operator must also keep in mind that when one component of this system is changed, adjustments will be required in other components of this total system before the new system will operate efficiently.

Reddy Kilowatt, and all of us at Interstate Power, join in Saluting the Fayette County Soil Conservation District



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