



Missouri	3	Drake	38	Iowa State	23	Heelan	14	Details:
Notre Dame	0	S. Illinois	14	Rice	19	Dowling	0	The Big Peach

Des Moines Sunday Register

THE NEWSPAPER IOWA DEPENDS UPON ■ Des Moines, Iowa ■ Sept. 10, 1978 60 cents in cities and towns 70 cents by motor delivery

SECTION A

THE WEATHER — Widely scattered thundershowers southeast today. Highs in mid-80s to 90. Clear to partly cloudy tonight and Monday. Lows tonight in 60s. Sunrise 6:49; sunset 7:33. Details: 14A.

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ENVIRONMENTAL CRISIS DOWN ON THE FARM



"Labor Day is past — time to get the tree up."

Barbs fly in sharp

POLLUTION, SOIL LOSSES CAUSE ALARM

Economics and politics
thwart cleanup attempts

First in a series

By JAMES RISSE

The Register's Washington Bureau Chief

WASHINGTON, D.C. — Chiseled in the stone high above the entrance to Union Station is a collection of noble sentiments praising American commerce and industry. One reads:

"The Farm — best home of the family, main source of national wealth, foundation of civilized society, the natural providence."

To which a cynic might add: "The Farm — destroyer of the soil, fouler of the nation's waters, threat to the public health, the great polluter."

Agriculture is one of America's great glories, a success story almost unparalleled in world history. In an age when millions of the world's peoples go hungry, the United States is able to feed its own populace almost too well and still export \$25 billion worth of farm products each year.

But that production has come at a high cost to the country's natural environment, a cost that is becoming increasingly apparent and ever more severe. In fact, a six-month study by The Register of the impact of agriculture on the environment indicates that an ecological crisis may be brewing.

Not only is agriculture one of the leading causes of water pollution in the U.S., but it is destroying much of the precious soil its continued success depends on.

Water erosion, exacerbated by the all-out grain crop production policies of the mid-1970s, is draining topsoil from America's farms at a staggering rate — at least twice as fast as the topsoil can replace itself.

This is true not only on steep hillsides and on marginal soils that never should have been cultivated. It also is occurring — largely as a result of more intensive planting practices — on the relatively flat, rich farmland of the Corn Belt, the Southeast, the Pacific Northwest, New England, and almost everywhere American farmers put a plow into the earth.

Some experts worry that U.S. agriculture is in danger of putting itself out of business before too many more years by permanently impairing soil productivity.

In addition, the severe erosion by water and wind is choking rivers and streams with silt, and filling reservoirs with tons of sediment.

The farm soil that washes into the nation's waterways carries with it pesticides that threaten human and animal health, and fertilizers that turn sparkling rivers and lakes into dying bodies of water.

Large animal feedlots are regulated by the federal government, but thousands of smaller cattle, hog and poultry operations discharge millions of tons of animal wastes, laden with nutrients and bacteria, into streams.

In the Great Plains states, an irrigation boom has brought with it "mining" of underground water supplies, as farmers try to grow wheat on land previously deemed suitable only for livestock grazing. In some of these areas, water is being depleted at an alarming rate.

In the Rocky Mountain West and Southwest, and in California, major rivers are turning salty as irrigation water leaches minerals from the land and carries them into the waterways. Downstream farm fields, irrigated with the saline water, suffer reduced crop yields.

Economics and politics have combined to block any real solutions to these environmental problems associated with American agriculture.

Federal and state agencies have mismanaged soil conservation programs, congressmen have invoked parochial concerns to block effective

AGRICULTURE

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Fertilizer hides erosion effects

AGRICULTURE

Continued from Page One

curbs on farm-caused pollution, and farmer organizations have been complacent and even hostile to government attempts to deal with the situation.

"Point Sources"

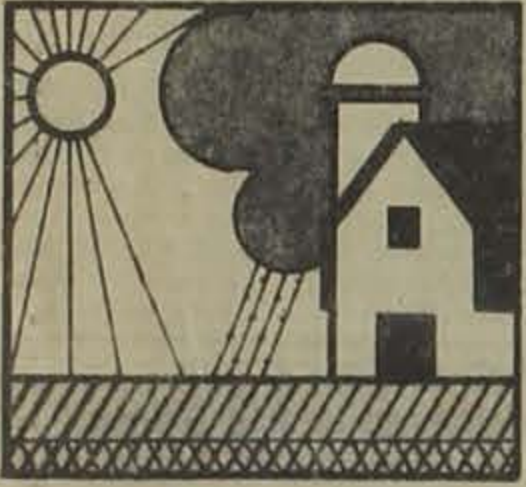
Until now, agriculture has been touched only lightly by the government's environmental protection programs. The new environmental awareness of the late 1960s and 1970s focused at first on so-called "point sources" of pollution — factories that belch smoke into the air and dump wastes into rivers, sewage plants that discharge inadequately treated effluents into streams, and automobiles that spew polluting exhausts into the atmosphere.

Those problems still are far from solved, but the machinery to solve them has been set up. Clean air and clean water laws have been passed, and regulations adopted to deal with point source polluters. Occasionally, the environmental push slows up or is hampered by budget cuts, but the trend is clear.

Having set in motion those measures, government now is forced to turn to the less easily identified but nevertheless serious "non-point source" pollution.

As it does, its attention inevitably will turn to America's farms, because agriculture is the biggest non-point source polluter.

In the months and years ahead agriculture will have to solve its environmental problems, which seems



unlikely, or face increasing public pressure and governmental regulation.

"If we clean up our municipal and industrial pollution and still find our waters polluted, the finger is going to be pointed more and more toward agriculture," said Rupert Cutler, the assistant U.S. secretary of agriculture for conservation.

"Soil erosion, and the environmental problems associated with it, are a very serious and underrated national problem," Cutler believes. "It could be approaching a crisis."

Crisis Is Here

In fact, the crisis already is here. That, at least, is the nearly unanimous view of experts both within and outside the government, who were interviewed by The Register.

Their views are backed up by a number of recent governmental and academic reports which document the extent of the problem, but which, so far, have had a limited effect on public policy. Some of the findings:

- Soil erosion is averaging nine tons per acre annually from U.S. farms, while new topsoil forms only at the rate of about four tons per acre each year.

- Soil conservation programs, largely financed by the federal government, have helped to keep the erosion problem from becoming even worse, but at the same time they have thrown away millions of dollars on practices designed more to increase crop yields than to conserve soil.

- Agricultural pollution of water is spreading, to the point where farming now adversely affects water quality in two-thirds of all U.S. river basins.

- Despite much optimistic talk of substituting "integrated pest management" for an almost total reliance on powerful chemical pesticides, pesticide use is still rising and could reach 1.25 million tons by 1985. Many of these chemicals find their way into streams, where they pollute drinking water supplies and cause toxic reactions in fish and wildlife.

- The 40 million tons of commercial fertilizers spread on the land each year by farmers result in nitrogen, phosphorus and other "nutrients" washing into lakes and rivers where they promote weed growth and sometimes lead to "eutrophication" and the eventual biological death of water bodies. Damage caused by the fertilizers is magnified by the tons of livestock manure that also drain into public waters, carrying more nutrients and potentially harmful bacteria.

- Inefficient irrigation systems and poor use of water by farmers

cause huge amounts of water in the moisture-starved West to be wasted. Federal irrigation projects lose more than one-fourth of the 10 billion gallons of water they deliver each year. The main culprits are seepage and evaporation.

- The 40 million acres of farmland now under irrigation in the 17 western states are taking a tremendous toll on water supply and water quality. In parts of Nebraska, Colorado and Kansas, according to the U.S. Department of the Interior, water is being drawn from beneath the ground at a rate ten times faster than water supplies can "recharge" themselves.

- Excess salinity in water that has been used for irrigation and then returned to streams is now a serious problem in the West and Southwest. The Colorado River system, for example, is turning salty at such a pace that damages to the regional economy, mostly in terms of lower crop yields, will hit an estimated \$125 million a year by the end of the century.

Agriculture, it is clear, is a major environmental polluter. The picture is a grim one, although most experts think the situation can be corrected.

So far, any effect that soil erosion may be having on crop production has been masked by the growing amounts of fertilizer applied to the land.

Farmers, who in some cases are raising crops more on chemicals than on soil, get large harvests and are understandably reluctant to engage in costly soil conservation practices that might reduce, at least temporarily, their profits.

Thus, what pressure exists to halt erosion is coming mainly from the imperatives of the federal clean water laws, which mandate "fishable and swimmable" waters throughout the U.S. by 1983.

Money Barrier

A barrier to erosion control, besides lack of will, is money. The Environmental Protection Agency estimates it would cost \$10 billion or more to treat adequately the non-point pollution sources on farmland.

The Carter administration has displayed a decided ambivalence toward dealing with pollution caused by agriculture. In theory, it favors the Rural Clean Water Program, set up last year to begin cleaning up farm pollution. And legally it has no choice but to work toward the 1983 clean water goals established by Congress.

But when President Carter unveiled his proposed federal budget for the fiscal year beginning Oct. 1, not a single penny was recommended for the Rural Clean Water Program.

The decision, imposed by the White House Office of Management and Budget, shocked Department of Agriculture officials and congressional sponsors of the program. As of now, it appears that Congress will ignore the White House and appropriate perhaps \$80 million to get the program started.

That would permit installation of pollution control measures on about 1.6 million acres of farmland — a significant start but only a tiny fraction of the total need.

Another major hindrance to halting soil erosion and agricultural pollution is the farm economy itself and the growing importance of farm products to America's foreign trade.

One of the quickest ways to reduce erosion and its associated damage would be to remove "marginal" quality land from intensive grain production and plant it with grass or soil-conserving crops. But all the indicators point in a different direction.

In the early 1970s, when the U.S. sold huge quantities of wheat to the Soviet Union, and was in the process of expanding agricultural trade generally, Agriculture Secretary Earl Butz ended land-idling policies and ordered full production.

With grain prices high, American farmers responded happily, plowing up pasture and grasslands, knocking

NORML efforts zero in on Iowa

Iowa is a top priority for the National Organization for Reform of Marijuana Laws, NORML, national coordinator Keith Stroup says.

Stroup was in Des Moines Saturday to attend a NORML fund-raiser and to help plan legislative strategy with members of the state organization.

He said Iowa, Wisconsin, and Michigan have been chosen as top legislative targets for 1979. "I think we will win those three," he said.

down shelterbelts of trees that had been planted to prevent wind erosion, and planting their land — fence row to fence row — with corn, soybeans and wheat.

Land previously idled as a conservation measure, or rotated between crop production and livestock grazing, was turned over to massive grain production to feed the citizens and animals of other nations.

Within the Agriculture Department, the Soil Conservation Service warned that the new planting policies would bring a devastating increase in soil erosion. The warnings were ignored, in the enthusiasm for gearing up the American food production machine.

The predictions have come true. In western Iowa, fragile loess soils previously devoted mainly to grazing were planted with soybeans and corn. Now they are washing down from the hilly slopes into the already polluted Missouri River drainage system.

Thin Soil

In southern Iowa the rate of erosion is lower, but the topsoil there is already so thin that the land is quickly wearing out.

In eastern Colorado, absentee landowners ordered pasture land planted with wheat. The owners reaped large profits for two or three years. Then, when wheat prices fell again, they abandoned the land to the ravages of wind and water.

The picture is the same, in varying degrees, from coast to coast.

This year, with foreign demand down and with domestic grain prices lower, the government again has established a modest land "set-aside" program.

But a bureaucratic snafu within the Agriculture Department has caused even farmers who are serious about conservation to plow up land previously kept in soil-conserving pasture in order to increase their "normal crop acreage" and qualify for more government price protection.

The Soil Conservation Service protested that farmers who had been practicing soil conservation should be given credit for having done so rather than being penalized in the new set-aside program.

But the protest was rejected by the Agricultural Stabilization and Conservation Service (ASCS), which runs the crop payment programs.

The policies of the highly politicized ASCS are, in fact, one of the main reasons for the failure of federal soil conservation programs.

Tied to party politics and championed at the Washington level by Representative Jamie Whitten, the Mississippi Democrat who virtually controls Agriculture Department spending, ASCS has given millions of dollars to farmers ostensibly to practice conservation but actually to step up their crop yields.

These and other political factors involved in the complex relationship between agriculture and the environment will be explored in this series of articles, which will continue in the daily Register.

Agriculture Secretary Robert Bergland has listed soil erosion and agricultural pollution as one of his top priorities. Failure to come up with economical and effective soil conservation efforts between now and the end of the century would put the nation on a "collision course with disaster," Bergland has said.

"Agriculture contributes a big share to pollution, and we have to recognize that and begin doing something about it," says William H.



The forces of the environment and the needs of agriculture are precariously balanced on the east bank of Ballard Creek near Cambridge, Rich, black topsoil is

gradually toppling into the water and washing away and each year the creek creeps closer to the Luetta Irwins' lush cornfield.

Correction Notice

Ardan
catalog showrooms

September Sale Catalog

14K Gold Serpentine Chain #J512-1115 on TRU-SPECIAL at \$9.44 on page 3 cannot be re-ordered. No Rain Checks will be issued. Advertised sale price offered while 248 last.

Hoover Concept One™ Upright shown on page 9 #A017-U4201 is not self-propelled. Concept One™ self-propelled model #U3101 is listed at \$199.50 in our Fall Catalog.

Diamond Ring #J995-446230 on page 5 is incorrectly described as having three side diamonds. This ring has a center diamond with two side diamonds.

Fall Catalog

Our regular everyday price for Clairol Crazy Curl Steam Wand #A072-200 on page 236 has been reduced from the \$12.94 shown in the Fall Catalog to \$11.77.

Our regular everyday price for Imperial® 6-piece Collectables Set #H181-CS5 on page 159 has been reduced from the \$27.90 shown in the Fall Catalog to \$26.90.

Open Teardrop Pendant of 14K yellow gold #J995-27631, shown on page 21 of the Fall Catalog, has .08 carat diamond. The Catalog description incorrectly states that it has .16 carat diamond.

14K Yellow Gold Pendants #J622-4056 and #J622-2748 on page 48 are incorrectly described as having emeralds. They are set with green onyx. These pendants are also available with emeralds by special order.

Welby "Parliament" Clock #G610-7487 offered on page 222 does not have a striking mechanism as described.

Audiovox Universal Car Radio #R899-C506 on page 332 does not have a speaker as described.

Pentax 135mm Lens #P768-23460 on page 308 is incorrectly priced at \$99.90. The actual price is \$104.29.

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