THE CEDAR VALLEY TIMES

BENTON COUNTY'S COLORFUL DAILY NEWSPAPER

Vinton, Iowa, September 18, 1978

County at critical point for natural resources

B HENRY LYPHOUT, Chairman
B ton County Soil Conservation District

We're at a critical point in the county as far as protecting o natural resources is concerned. On sloping soils, half the t soil has been lost in the last 100 years. And the rest could be g e in the next 100 years if something isn't done about it.

But we also have the best information we've ever had about th condition of our soil and water, and what needs to be done to p tect them. The reason I say we're at a critical point is that w know how much needs to be done; the test is whether people wi see to it that the work is done.

This summer, we have asked people in Benton County what th y were most concerned about in connection with our natural r ources. Two of the top concerns were erosion by water and l d use. That information, along with other data we have on r ource problems, will help us develop a revised five-year p gram.

From the district's standpoint, our greatest problem is soil e sion on cropland. Two of the best practices to stop erosion a terraces and conservation tillage. Some 519 miles of t races needed have been built and only 2.0 percent of the row c p acreage in Benton County is farmed with the soil-saving t hnique known as conservation tillage.

There's much more conservation work that needs to be d e. I hope you'll continue to give soil conservation work your s port.

Soil conservation award winners named

TIM NEWS — Winners in the 1978 Iowa il Conservation Achievement Award ogram are Don and Virgil Kozik, Belle laine, in the owner-operator divisio Keith Beatty, Shellsburg, in the new operator division, and Emil Chalup y, Vinton, owner, and Anderson Brothe operators, in the tenant operated divisio Ben Stok of Belle Plaine received honora e mention.

The zik farm has also been chosen as a regio l winner in the contest and will advanc o state competition. State entries will be dged in early December.

The ziks operate 457 acres which is located our miles north of Belle Plaine on Highwa 30. They have an 85-head purebr Hereford cow herd and feed 100 to 125 f der cattle each year. The Koziks market 00 to 800 head of market hogs and purebr Duroc boars each year.

All t row crops are on the contour and most o he farm is strip cropped to corn, beans, ats, meadow, meadow rotation. Part of e farm has been terraced. All the pasture land has been fertilized and seeded alfalfa and brome grass.

Don married and has three children, Sherri , Douglas, 19, and Janet, 16.

Mr. d Mrs. Keith Beatty farm 320 acres n r Shellsburg. They have 90 acres of beans, 165 acres of corn, and 60 acres of hay. The row crop is planted on the contour and Keith has grass strips on the sloping land.

The Beattys raise about 300 head of cattle each year.

Mr. and Mrs. Beatty have three children, Chad, 12, Todd, 10, and Brooke, 8. The Beattys are new cooperators with the Benton County Soil Conservation District.

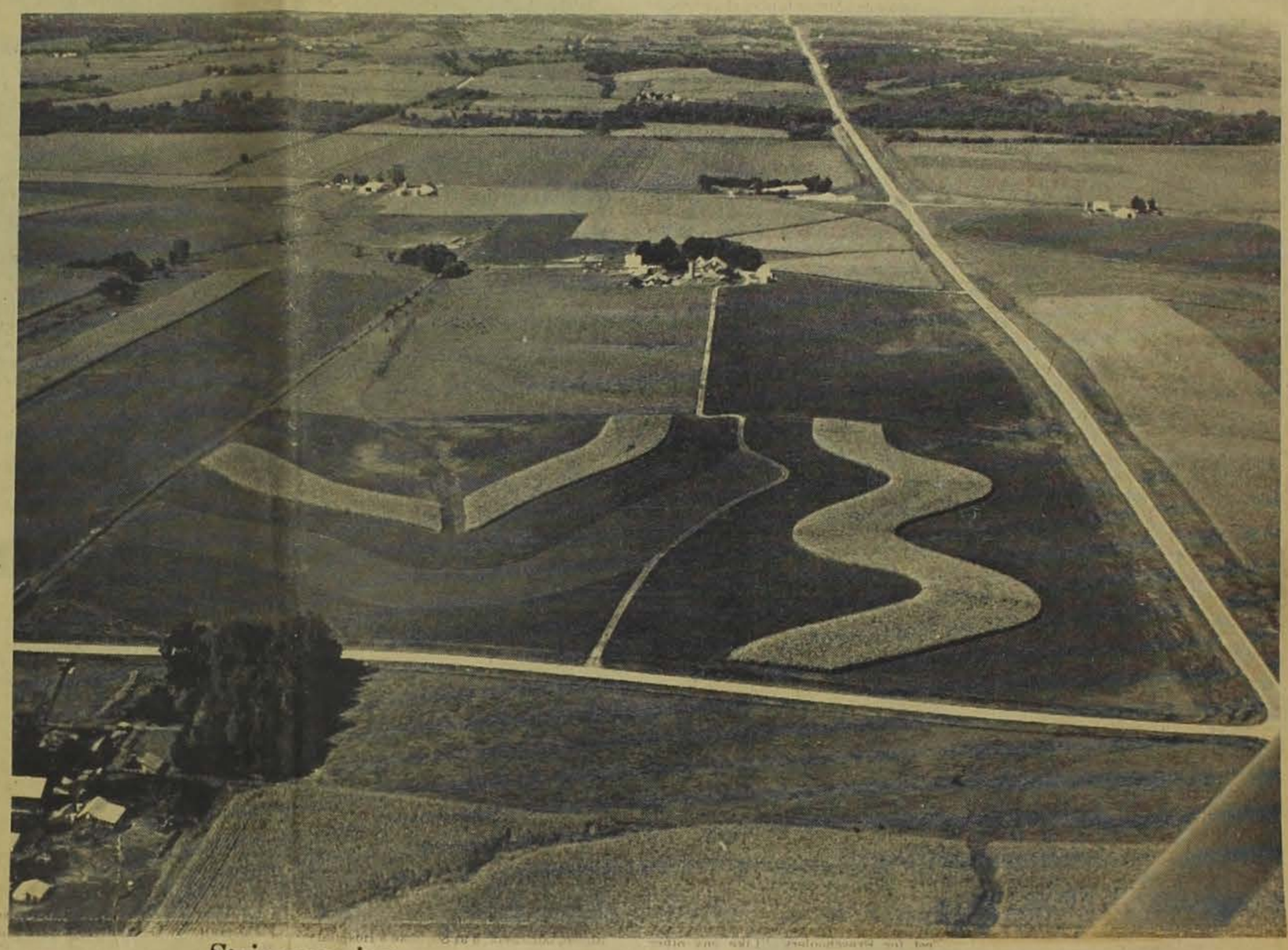
Emil Chalupsky owns 200 acres located 4 miles southwest of Vinton. The land is operated by Anderson Brothers. He has 100 acres of corn, 50 acres of beans, and 40 acres of oats.

Emil has strips of multiflora rose and strips of grass around each slope. These areas are excellent wildlife areas. All row crop is contoured.

Emil does some medical research and one of his favorite hobbies is photography.

Mr. and Mrs. Ben Stok farm 130 acres near Belle Plaine. They have 28 acres of corn and 25 acres of oats which are strip cropped. The remainder of the farm is pastureland. The Stoks raise about 400 pigs each year.

They have an excellent wildlife area on the farm where deer come to lick the salt blocks which the Stoks provide.



Strip cropping

Strip cropping is visible in the aerial view of the Don and Virgil Kozik farm which is located four miles north of Belle Plaine on U.S. Highway 30. The Kozik farm is a regional winner in the State Soil Conservation awards program.

Crop residue important

Conservation tillage reduces loss of soil, water

AMES — Conservation tillage reduces the loss of soil or water compared to unridged, clean tillage, according to Min Amemiya, extension agronomist at Iowa State University.

Effectiveness of conservation tillage systems depends on the amount and distribution of crop residues, surface roughness and surface soil configuration, he said. Such conditions are enhanced by less moldboard plowing and unnecessary secondary tillage prior to planting.

The adoption of conservation tillage makes it possible for farmers to have efficient and profitable crop production, to conserve soil and water resources, and to improve environmental quality, Amemiya said.

Conservation tillage can lower crop production costs by reducing time, labor, and machine and fuel requirements, although some of these reductions may be partially offset by increased costs for pest control.

Crops yields usually are comparable to those from conventional tillage systems, Amemiya said, but conservation tillage requires more management. As with conventional tillage, good stands, effective pest control and adequate soil fertility are necessary for maximum yields, he added.

Conservation tillage is adapted to a broad range of soils and slopes. "It could be the single most effective and least costly means of reducing soil erosion," Amemiya said. He also noted that by controlling erosion, conservation tillage can contribute to the maintenance or improvement of water quality.

The specialist noted that Iowa is involved in a national program to maintain and improve the integrity of water. Surface runoff from agricultural land carries pollutants into Iowa's waters, he explained.

Pollutants occur as sediment caused by soil erosion, plant nutrients, agricultural chemicals and organic matter. Of these, the major pollutant is sediment eroded from land and transported to streams and lakes by runoff waters. Thus, sediment control through soil erosion control measures can prevent or reduce the generation of sediment and related pollutants.

Conservation tillage systems control erosion on level to gently sloping land, which makes up more than half of land in Iowa.

"This does not imply that terraces and erosion control measures should not be used," Amemiya said. "But in many instances, adoption of such practices is costly or short-run economic return is low."

On sloping land, soil and water losses can be reduced by providing a mulch of plant residues or a rough soil surface. If fall tillage is necessary, Amemiya says a chisel plow can be use on the contour or across the slope. A once-over system such as a till planter or a slot planter may prove promising on sloping land, he added.

On level to nearly level land on the uplands, operations that provide surface residue and cloddy overwintering surfaces promote surface drying and protect against wind erosion. By reducing the number of trips, soil compaction and soil crusting potential are minimized. These soils are often slow to dry in the spring, Amemiya said, so some fall tillage with a chisel plow and till planting are desirable.

"The better drained the soil, the less tillage needed," Amemiya said. Crop residue reduces evaporation of soil water on sandy soils, which makes slot planting or till planting advantageous, he added.

Using the proper tillage equipment at the right time of year and on certain soil conditions can also help soil and water conservation, Amemiya said.

Chisel plowing in the fall is preferred over spring plowing. But using a field cultivator in the spring may not always produce desired results. Disking or strip tillage may be needed to firm the soil and provide a good seedbed to obtain stands comparable to conventional tillage.

Fall disking leaves less residue than chisel plowing and may result in more wind erosion over the winter months. Disking in the spring is well adapted to late springs when weather or soil conditions do not allow for fall or early spring tillage.

Till planting provides good stands except on poorly drained, heavy textured soils, when planting on top of ridges is more successful. Ridges should be made across the slope for best erosion control.

Weed control problems are most severe with slot planting, especially on sod, Amemiya said. "It is essential to provide sufficient weight for the coulter to penetrate the undisturbed soil. Firmness of soil with continuous slot planting decreases water infiltration, but produces the best erosion control," Amemiya said.

Amemiya suggests that Iowa farmers adopt some form of conservation tillage as part of their crop production program. "Increased use of conservation tillage will go a long way in solving Iowa's erosion and water quality problems," he said.

New four-acre pond

Clyde Merchant, conservation technician, Jerry and Wayne Rabe, contractors, and Rob Morrow, conservation technician are shown from left to right above. The Rabes are preparing to construct a four-acre farm pond on this land, owned by Dr. Robert Shultice of Cedar Rapids. The farm is in Benton County.