

Saving Soil Makes Dollars And Sense

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— In 1936, Donald Cotner dared to try a new conservation measure called contour strips. Convinced of their effectiveness as a soil saver, Cotner eventually installed many more strips along with diversions, terraces, and waterways on his farm in Northumberland County. And because of the "exceptional stewardship of agricultural resources" on the Cotner farms, Donald and Janie Cotner of Danville were among 10 finalists in the National Conservation Farmer of the Year awards program sponsored by the National Endowment for Soil and Water Conservation and funded by the Dupont Company.

"My brother worked for SCS (Soil Conservation Service) in Clarion County and came home and helped me install these contour strips," says Cotner. "They looked crazy in those days, but they worked."

The home farm has been in the family since 1913, and with additional purchases of adjoining farms, the Cotners now own 800 acres and rent 250 acres. Cotner adds, "I decided early in my career as a farmer that if I was to be a steward of the soil I would do my best to care for the soil. It's just a common sense approach."

To date, Cotner Farms has installed 11,075 feet of cropland terraces, 10,250 feet of diversions, 300 feet of sod waterways, a manure storage facility, and practices

no-till planting, minimum tillage, and winter cover cropping, as well as contour farming. Since about 90% of the farm is in corn, no-till is practiced extensively. Two years of no-till is followed by 2 years of minimum till into small grains.

"We are almost 100 percent no-till corn," adds Cotner. "We farm over 1,000 acres of hills, so we use no-till, terraces, waterways, and diversions."

Minimum till or chisel plowing is used when small grains are sowed. Seeded with the barley or oats is hairy vetch, a cover crop that Cotner feels is beneficial to him. The following spring he no-tills his corn into the vetch. In this way erosion is in check, and an extra helping of nitrogen is given.

Cotner received the Pennsylvania Conservation Farmer of the Year award earlier this year that made him eligible for the top ten national finalists. An awards ceremony was held for the top ten winners on October 30 in St. Louis in conjunction with the annual meeting of the American Agricultural Editors Association.

Though not selected as one of the three national winners, recently awarded to California, Kansas, and Virginia farmers, the Cotner's placing was extremely close. Cotner was also eligible in 1983, the first year of the national award when he received the Outstanding Conservation Farmer Award from the Pennsylvania Association of Conservation District Directors.

Another part of the Cotner farm



Don Cotner stands in one of his fields seeded to oats and hairy vetch. Beneath him is one of the many terraces on the farm.

is their production of eggs. Says Mrs. Cotner, "We package and market our own eggs. We ship to Wilkes Barre, Scranton, New York, New Jersey, and local hospitals."

Cotner Farms, run in partnership with son, Donald, Jr., manages 200,000 layers that produce about 12,000 dozen eggs per day. The business employs nine full-time workers to assist with the grinding of feed in their own mill, egg inspection, packaging, and delivery of the finished product in their own trucks.

Don Cotner not only practices conservation, he promotes it. "He has contributed hundreds of hours of his time to promote soil and water conservation in Northumberland County," says Bob Jacobs, District Manager for the Northumberland County Conservation District. "Don saved on the original steering committee that formed the Northumberland Conservation District back in 1934, and became one of the first farmers to sign up a "cooperator" with

the district in 1944."

Cotner also served on the board of directors of the conservation district for 20 years, retiring in 1980.

Cotner pioneered the use of no-till farming in Northumberland County in 1970. Because of this, he has volunteered his land for no-till demonstration plots, offered his buildings for twilight meetings, and served on a federal panel to help other farmers with no-till. He is also a member of the Columbia Crop Management Association, as well as the Pennsylvania Farmer's Association.

The 70-year-old Donald Cotner has been successful in the farming business for over 50 years and is quite convincing with his philosophy. "There's no question," stresses Cotner, "without soil conservation we couldn't survive. It is more profitable to keep soil on the farm than to let it wash away."

Saving soil saves money. Just ask Donald Cotner about the dollars and sense of it.

Manage Phosphorus For Long-Term Profits

ATLANTA, GA — Phosphorus fertilizers are important management tools for long-term, sustained yields and profitability. Sustained profitability is the real indicator of good crop management. Superior crop management requires inputs based on sound advice and information, followed by appropriate, timely action.

Phosphorus fertilizer application methods have received a great deal of attention as a management tool. Banding phosphorus either preplant or at seeding can keep more phosphorus available longer and boost yields, especially when soil test phosphorus is low. But don't assume that broadcasting and incorporating phosphorus is all wrong. To do so may mean lost yield—and lost profit opportunities. Broadcast and incorporated phosphorus can provide the crop's needs if it is properly managed. In fact, recent evidence indicates greater wheat profits through higher yields and other cost savings when single large applications of phosphorus are made. That information relates particularly to the calcareous soils of the Great Plains.

Long-term studies of five to 12 years in Manitoba, Saskatchewan and Montana show that cereal and oilseed crops yield about the same whether phosphorus is supplied intermittently as a single, large application or in smaller annual quantities. Availability of residual

phosphorus in the soil was as great as that from annual banded applications. Profitability over a 5-year period was found to be 15 percent greater for the residual phosphorus program. Yields were 50 percent greater than when no phosphorus was applied.

Large broadcast phosphorus applications establish a supply equilibrium controlling the amount of phosphorus available to the crop. When that phosphorus application rate is sufficient, the supply will be sufficient. Availability can continue for five or more years.

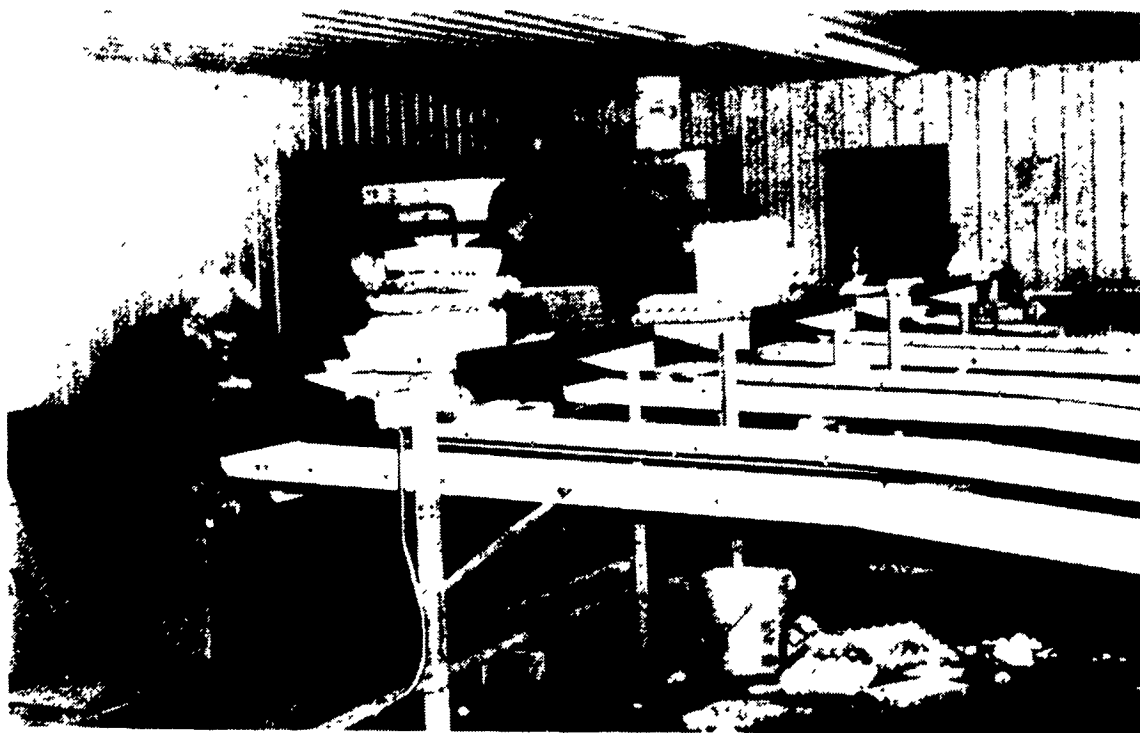
On some high-residual phosphorus soils, yields may be further increased by placing additional phosphorus with the seed for quick, early season growth.

Balancing nitrogen nutrition with phosphorus can increase yields by 50 percent with dramatic effects on profitability. Balanced fertilizer programs are essential. An essential part of good management is to assure everything works together—and at maximum efficiency.

Crop yields will usually increase as high residual phosphorus levels develop deeper in the soil. Phosphorus which becomes incorporated into soil organic matter moves into subsurface horizons. As phosphorus content increases throughout the rooting volume of the soil, the potential for better yields increases.



Donald and Janie Cotner will celebrate their 50th wedding anniversary December 15, 1989. They have one son and six daughters with 16 grandchildren and the first great grandchild is due any day.



Cotner Farms employs nine full-time employees and packages and markets all their eggs.



Donald Cotner farms 1050 acres of corn, soybeans, and small grains employing contour strip cropping, terraces, diversions, and waterways.