

# County Soil Conservation District

## No-till planters available in 1982

By Steven Manternach

Area farmers will find it easier to try no-till this spring. Pine Lake Implement in Eldora, and Benton-Higgins Implement in Alden will both have no-till planters available to rent.

Carl Stevens, Manager of Pine Lake Implement, will have a 6 row - 30 inch Allis Chalmers (300) no-till planter. "The planter will come with a tractor and monitor," says Stevens. "The planter will have no-till coulters and insecticide attachments. Row spacings can be easily changed since each planting unit is driven independent of the others. With this planter, you will get accurate singulation for corn and soybeans which is important in planting with any type of tillage systems and especially important in no-till. Allis Chalmers has been a long time leader in soil conserving implements and especially in no-till planters. I would like to encourage all farmers to try conservation tillage and no-till."

## Do you need to replace your planter?

We strongly suggest that you consider a reduced tillage system of row crop production.

Row crop land that has 6% or less slope, for the most part, can be farmed with reduced tillage systems and not be over the soil loss limits. As a higher percent of your land exceeds the 6% slope, you may have to add some other conservation practices. You may have to contour some of the more uniform slopes, and may have to terrace some of the less uniform areas.

There are many different reduced tillage systems that work well. To determine the one for your operation, you will want to observe closely, the working principle of several different systems that could fit your operation. You may even want to try a few acres with a rented machine.

There seems to be a trend developing in reduced tillage systems. That is no-till. No-till means, no-tillage before planting and all of the residue is left on the surface after

says Stevens. "We will have a training school for those who sign up for the planter to show them how to make adjustments."

"Wayne Higgins, of Benton-Higgins Implement in Alden, will have a 6 row, 30 inch John Deere no-till planter available to rent. The planter will be fully equipped with herbicide, insecticide and liquid starter fertilizer attachments. We will include a tractor and monitor plus we will have an operator to go with the planter to assist the farmer in getting started," says Higgins. "Farmers can also rent a Hinkler Cultivator that will work in the heaviest crop residue. We would like to see as many farmers try no-till and conservation tillage. Our main idea with this planter program is to assist the farm community make a decision on whether they go no-till or conservation tillage."

"So far there seems to be a lot of interest in no-till," says Steve Manternach, District Conservationist. "A lot of people who have been using conservation tillage the past few years are ready to try no-till. The last time we counted, we had 20 landowners who were interested in renting the no-till planters. In 1982, we had approximately 350 acres of no-till. This year, we hope to have at least 1,000 acres. This program should allow people to try no-till on their own land without buying a new planter."

For more details on the planter rental program, see the Soil Conservation District Office in Eldora.

By Earnest Hoffa,  
Engineering Aide-

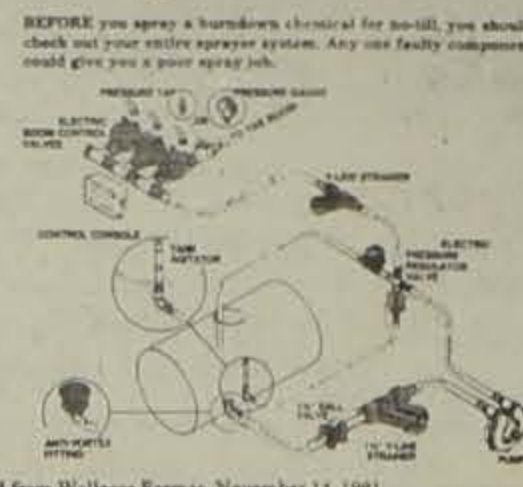
planting. Some of the pioneers in reduced tillage row crop production, started out with a chisel or heavy disk or a strip till planting system. Now many have evolved to a no-till system.

One of these pioneers is Dan Statmueller, of Jones County in eastern Iowa. He has gone from a chisel plow system to strip till and now to a near no-till system. He still does some stalk cutting just before planting. He still wants some ridge to plant in, so he depends on a cultivator. Statmueller uses a planter that can be used to apply herbicides, insecticides and fertilizer.

Another innovation that he uses successfully, is alternating 6 rows of corn and 6 rows of soybeans. He does this on his long fields and on his thinner soils. On the thinner soils, he gets better yields and on the long rows it is more convenient.

A term that Dan often uses to describe his system is, "Profit Tillage."

## Sprayer important part of no-till system



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Next to the planter, the sprayer is the important piece of equipment in any tillage system, especially in no-till. If the sprayer is not set up properly, the rate you apply may not be the rate you want.

No-till requires high gallonage (30-50 gal./ac.) and high pressure (35 lbs.). High pressure and high gallonage are needed to make sure the herbicide you apply gets to the ground.

Before trying no-till, make sure your sprayer has the following:

1. Sprayer capacity 300 gallons or larger.
2. Equipped with a turbine or centrifugal pump.
3. Suction hose diameter 1 1/4" or larger.
4. Suction hoses should be steel braided or nylon reinforced.
5. Shutoff control valve.

## Financial Report

(July 1, 1980 - June 30, 1981)

|                                   |           |                           |        |                                            |          |
|-----------------------------------|-----------|---------------------------|--------|--------------------------------------------|----------|
| IM Budget - District Allocation   | 1,700.00  | June 30, 1981 Balance     | 382.37 | ment                                       | 274.00   |
| Expenses                          |           | Conservation Club Account |        | Soil Stewardship Material                  | 74.01    |
| Commissioners Mileage, Meals      |           | July 1, 1980 Balance      | 560.75 | NACD Dues                                  | 150.00   |
| Hotels                            | 489.52    | Receipts                  |        | IASCD Dues                                 | 150.00   |
| Office Supplies & Expense         | 1,049.15  | Contributions             | 603.00 | Misc. & Office Expense                     | 145.81   |
| Printing                          | 10.88     | Flegs sold                | 28.80  | June 30, 1981 Balance                      | 484.09   |
| Total                             | 1,529.55  | Miscellaneous             | 7.15   | Employees Account                          |          |
| Released back to State            | 170.77    | Disbursement              |        | County Funds used for Technical Assistance | 2,481.01 |
| Balance on hand 6/30/81           | .00       | Copier Maintenance Agree- |        |                                            |          |
| IIIM Budget - District Allocation | 27,381.00 |                           |        |                                            |          |
| State Clerk & State Aid           |           |                           |        |                                            |          |
| Expenses                          | 24,187.39 |                           |        |                                            |          |
| Travel                            | 25.00     |                           |        |                                            |          |
| Released back to State            | 3,128.61  |                           |        |                                            |          |
| Balance on hand 6/30/81           | .00       |                           |        |                                            |          |
| IIIM Budget Cost Share Program    |           |                           |        |                                            |          |
| July 1, 1980 thru June 30, 1981   |           |                           |        |                                            |          |
| Allocation                        | 45,000.00 |                           |        |                                            |          |
| Obligated or Spent                | 44,907.63 |                           |        |                                            |          |
| Balance returned to State         | 92.37     |                           |        |                                            |          |
| Revolving Account                 | .00       |                           |        |                                            |          |
| July 1, 1980 Balance              | 389.28    |                           |        |                                            |          |
| Receipts                          |           |                           |        |                                            |          |
| State Comptroller                 | 1,411.77  |                           |        |                                            |          |
| Disbursement                      |           |                           |        |                                            |          |
| Office Supplies                   | 1,398.66  |                           |        |                                            |          |

Name \_\_\_\_\_

Address \_\_\_\_\_

Number of acres you wish to try no-till on \_\_\_\_\_

Crop to be planted \_\_\_\_\_

## Conservation tillage saves soil..use it or lose it

By Caleb Knutson, Commissioner

Most farmers have changed farming practices in the last 5 years to include some form of mulch tillage. We got involved in conservation or mulch tillage in 1963 because my father, at the young age of 77, said one day, we are losing our productive topsoil faster than we should. If we don't do something soon, it could be too late.

Now if you think we were losing it fast in 1963, remember how we speeded it up the next 10 to 15 years. Our generation has done more damage to the topsoil of Iowa than the two previous generations. As we soon had tractors with more and more horsepower and could get all of our fall tillage work finished early enough in the fall to leave the soil vulnerable to erosion from October until the end of June the next year when the corn and beans were finally large enough to help cover the ground. Also we got one half of a normal years rainfall in the April to June period. As farmers went to one-half corn and one-half soybeans, the soil loss continued to climb. This was before it was general knowledge by the farmers of Iowa that the ability of our valuable soil to maintain its productivity was with a soil loss of not more than 5 tons per acre per year. Now consider that some fields have been checked here in the Radcliffe area with 34 tons of soil loss per acre per year. That is the weight equivalent of over 1,200 bushels of corn per acre per year. How long do you think this can continue before the productivity drops? Yet some of you will say "just put on some fertilizer," it will be ok. But now that the cost of fertilizer is the price it is, can you afford to use double and triple the regular amount you are using and still make it pay? What about the loss of the necessary rainfall that runs off those "brown knobs" into the waterways and creeks along with the soil?

Dr. John Laflin, head of the U.S.D.A. - A.R.S. research team at I.S.U., reported that Iowa could lose 253 million tons of

topsoil yearly if all Iowa were plowed. Under a no-till system, soil loss on Iowa's cropland could be reduced to 21 million tons or 8% of that amount. With fall plowing, we would lose 967 million lbs. of nitrogen per year from erosion. With chisel disking, this would be reduced to 776 million lbs. With no-till, this would be reduced to 170 million lbs. Laflin reported that U.S. farmland loses 2.8 billion tons of topsoil per year. At the present fertilizer cost, he calculated 11.4 billion dollars worth of nutrients were moving off the farm. Instead of depositing that value in the bank, it is being deposited in the Gulf of Mexico, and checks written on that deposit are not being honored. The Iowa "2000" program is the goal the Iowa Legislature has set to have all of the soil loss in Iowa down to 5 tons per acre or less, by the year 2000. This is a very ambitious program that may seem to be unobtainable. Factors that are changing all of this for the landowner-operators is the squeeze of the cost of fertilizer and money against the prices of the crops produced. Then by the year "2000" the old style operators will be gone and new thinking will take over. Namely, a way to farm with less power requirements that will give adequate yield and a guarantee to save the available moisture in a dry year without aggravating the situation in a wet year.

In 1963, there were no proven ways to accomplish these requirements. We had to learn everything in the field. There wasn't any of it in the books. Also the seed corn companies were not ready with the right seed. The machinery was just beginning and the knowledge of how the residue would affect the crop was just not there. Today, all this information is available. It is up to us to use this information and start saving soil before it is too late!



If you are losing topsoil like this, you are losing valuable plant nutrients. Fertilizer and plant nutrients attached to soil particles can be moved by wind or water. Fall plowing to incorporate fertilizer also causes a loss of fertility. Is fall plowing worth it?

## They like benefits of good windbreaks

By Val Gerdes,  
Soil Conservationist



Howard Frey Windbreak

Howard Frey, Eldora, has been planting trees for windbreaks since 1934. Mr. Frey's windbreak on his farm was the 1981 winner of the Izaak Walton Windbreak Award. Several rows of mature Douglas fir have been interplanted with Norway spruce and rows of walnut seedlings and honeysuckle were added.

Mr. Frey says, "The Douglas fir made a good windbreak, but the storms have taken the tops out of many and some are losing lower branches. It's time to start replacing these trees to maintain a dense windbreak." He also recommends that you don't plant on old livestock pens or drainage areas from livestock. "The soil isn't good for evergreens if it's had a lot of manure on it."

Mr. Frey has planted windbreaks for his neighbors over the years and many of them are still standing today. Mr. Frey has seen the trees he and neighbors planted, grow and reach maturity, and he continues to plant trees so others can enjoy the many benefits of a good windbreak.

"When you set trees out among older trees you have to keep the weeds down and water them because the older tree roots will try to take the moisture away from the little ones," says Frey. The recommended way to control weeds and grass is to mulch 1 - 2 foot around the base of the tree with 3 - 4 inches of wood chips, clean straw or ground corn cobs. The mulch helps to conserve the moisture and maintain a more even soil temperature. The best way to water is an inch of rain every 7 to 10 days. If rain doesn't come, water the trees the equivalent of an inch of rain. It takes time, but it's well worth it.

Mr. and Mrs. Duane Swart of Iowa Falls, are planning to plant a new windbreak on the farm they rent. "It's going to help cut our heating costs and keep the snow back," explained Mrs. Swart. "The old grove is starting to die back and we want to have more protection," said Mr. Swart. They realize that mulching and watering will be necessary as well as keeping the rabbits away. They will wrap the trees and put wire around to protect them.

In order for a windbreak to be effective and last a long time, careful, considerate planning is needed. Determine the area you and your family want to protect, include barns, confinement areas, homes, driveways, even gardens. Windbreaks or groves should be planted on the north and west of the area to be protected from winter storms.

Plan on planting 30' from the edge of the roadway on the south and east sides and 120' from the north or west side of roads. Where snow drifting may be a problem, the distance from the primary area to be protected to the outside row should be a minimum of 100'.

When choosing the trees and shrubs for your windbreak, use varieties suitable to the soils in the area and resistant to chemicals or insects that may be around. Using several different kinds of trees and shrubs will lessen the chance of a complete loss of a planting by drought, disease, or insects and improve the visual resource.

As Mrs. Swart said, "When your farm and home look good, you feel good about yourself, too."

Farmland Foods, Inc.  
Iowa Veterinary Supply  
Weaver Construction Co.  
Cooper Services  
Nissly & Nissly  
Payless Cashways  
Taylor Lumber Co.

Prestressed Concrete Operations  
St. Regis Paper Co.  
Iowa Falls Federal  
Savings & Loan Assn.  
Citizens State Bank  
Campbell Supply Co.  
Stockdales Corp.  
Ezzee-Dry Bins  
Alden State Bank

Hoffman Seed Farms, Inc.  
Mulford Brothers Corp.  
Automotive Parts Store  
Iowa Limestone Co.  
Ken Wood Electric  
Linn's Funeral Home  
Benton & Higgins