

1-12-84

LESS TILLAGE CONSERVES SOIL

by Norman Brus, Soil Conservationist
Delaware Soil Conservation Service

With the cold winter weather comes thoughts of planning next spring's planting season. Along with decisions of hybrids and herbicide selection should be decisions on field preparation. A question that each farmer should be asking himself is "What type of tillage am I going to use, or am I going to use any at all?".

Tillage and certainly moldboard plowing are not necessary on most soils in Northeast Iowa. Our grandfathers tilled the soil for reasons of weed control, soil aeration, and so that their planters could penetrate the soil surface. Today most farmers use pesticides to control their weeds and insects. Drainage tile has improved soil aeration on wet soils. Planters of today are able to penetrate the soil and plant the seed at correct spacing and proper depth in thick crop residue. Today's farmers have the equipment herbicides, and insecticides necessary to use a conservation tillage system to protect their soil from erosion.

Today's progressive farmers use conservation tillage or no-till to plant their crops. Conservation Tillage could also be called residue management tillage because it is a conscious effort to leave crop residue (usually 20-50%) on the soil surface after planting. It is not simply omitting moldboard plowing from the tillage system. The crop residue intercepts the force of raindrops before it hits the soil surface, therefore fewer soil particles are dislodged. When water starts to flow over the soil surface, residue slows the speed of water movement and reduces soil erosion. Residue management tillage can reduce erosion by 50% over plowing.

LESS TILLAGE CONSERVES SOIL - continued

No-till works because of the same reasons that conservation tillage works. The main difference is that no-till leaves more residue on the soil surface so it does a better job of conserving soil. Usually with no-till, 50 to 90% of the soil surface is covered with residue. This extensive cover of residue can reduce erosion by up to 90%. The residue cover is important in the spring of the year because that is when most soil erosion occurs. After July 1 the growing crop's canopy is usually getting large enough to help protect the soil.

There are many other reasons why residue management tillage and especially no-till should be adopted. Fewer trips over the field means a savings in time. Less time spent in the field allows you to spend more time with the livestock operation instead of neglecting it for a week or two while planting. Reduced tillage may allow the grain farmer to work a few more acres. Other savings come from lowered fuel use and smaller machinery inventory.

This winter when you sit down to plan your spring planting, incorporate some no-till or residue management tillage into your strategy. It will help you save those four elements that seem to be getting in shorter supply, rich Iowa topsoil, time, money, and fuel. If you have questions concerning no-till, conservation tillage, or any other soil conservation concern, contact the local Soil Conservation Service office at 927-4590 or stop in for a visit at 721 South 5th Street in Manchester. Our services are free and without obligation.

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Iowa 52237

Less tillage conserves soil

With the cold winter weather comes thoughts of planning next spring's planting season. Along with decisions of hybrids and herbicide selection should be decisions on field preparation. A question that each farmer should be asking himself is "What type of tillage am I going to use, or am I going to use any at all?", according to Norman Brus, soil conservationist with the Delaware County Soil Conservation service.

Tillage and certainly moldboard plowing are not necessary on most soils in northeast Iowa Brus said. "Our grandfathers tilled the soil for reasons of weed control, soil aeration, and so that their plants could penetrate the soil surface. Today most farmers use pesticides to control their weeds and insects. Drainage tile has improved soil aeration on wet soils. Planters of today are able to penetrate the soil and plant the seed at correct spacing and proper depth in

thick crop residue. Today's farmers have the equipment, herbicides and insecticides necessary to use a conservation tillage system to protect their soil from erosion."

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percent) on the soil surface after planting. It is not simply omitting moldboard plowing from the tillage system. The crop residue intercepts for force of raindrops before it hits the soil surface, therefore fewer soil particles are dislodged. When water starts to flow over the soil surface, residue slows the speed of water movement and reduces soil erosion. Residue manage-

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Brus said there are many other reasons why residue management tillage and especially no-till should be adopted. "Fewer trips over the field mean a savings in time. Less time spent in the field allows you to spend more time with the livestock operation instead of neglecting it for a week or two while planting. Reduced tillage may allow the grain farmer to work a few more acres. Other savings come from lowered fuel use and smaller machinery inventory," he noted.

"This winter when you sit down to plan your spring planting, incorporate some no-till or residue management tillage into your strategy. It will help you save those four elements that seem to be getting in shorter supply, rich Iowa topsoil, time, money and fuel," Brus concluded. Anyone with questions concerning no-till, conservation tillage, or any other soil conservation concern may call the local Soil Conservation Service office at 927-4590 or stop in for a visit at 721 S. Fifth street, Manchester. "Our services are free and without obligation," said Brus.

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