

# Farmers urged to reduce tillage this fall

Soil conservationists are urging Iowa farmers to reduce soil tillage after harvest this fall. "The disadvantages of fall tillage outweigh the advantages in most cases," says U.S. Soil Conservation Service State Conservationist Jeff Vonk.

Historically, tillage has been done in the fall to loosen the soil, control weeds, and get a head

start on tillage that would be done the following spring. But, depending on field conditions, fall tillage can actually cause soil compaction, increase time, fuel and machinery costs because of unneeded trips across a field, and encourage soil erosion.

Vonk says leaving corn stalks and bean plant residues on a field after harvest is one of the easiest, most economical ways to control soil erosion.

The residue cover is a key practice in the conservation compliance plans of many Iowa farmers. That practice can be most effective if crop residues are spread evenly over the field by the combine, Vonk says, and then left alone over winter.

"There's more recognition now of the value of crop residues than in years past," says SCS Crop Residue Management Specialist Jeff Zimprich. "And farmers are learning they can manage residues profitably. Last year, for instance, a wet fall resulted in less fall tillage and many farmers proved to themselves they could grow just as good a crop without fall tillage," he says.

Vonk and Zimprich maintain farmers can keep their options open next spring by doing no tillage this fall. "If you till this fall, you've lost the no-till option," Zimprich says. "That practice probably tripled this year

over 1991, and we expect it to continue to grow. The no-till option is an important one for some farmers to use as a substitute practice for more costly conservation measures in their compliance plans, too," he says.

Zimprich says conservationists are asking farmers to think through the reasons for fall tillage, to weigh what would be accomplished against the disadvantages.

From a crop production standpoint, Iowa State University Extension Agronomist Garren Benson says fall tillage is largely not needed. "I think in most cases, there probably isn't a very good reason, especially following soybean ground in the fall, which is very erosive," he says. "I'm not bothered as much by someone who wants to chisel some flat ground that's coming out of cornstalks, but I think most people have found that if they are careful that first trip in the spring to not work the ground too wet, certainly fall tillage in most cases just isn't needed."

Iowa State University agricultural engineer Stewart Melvin has studied soil compaction problems. He says fall tillage can loosen the soil. The problem, he says, is if the soil has been damaged by wet conditions at harvest, the soil is likely to still

be too wet for fall tillage. Any tillage in those wet conditions can aggravate soil compaction rather than make it less of a problem. "I think there will be some special conditions where we might look at tillage if we had damage, but in general we would try to minimize it as much as we could," Melvin says.

Philip Broer, a farmer from Hardin County, says he's learned he didn't need to do any fall tillage on his fields. "We probably haven't tilled our bean stubble in the fall for the last ten to fifteen years. We found out we didn't really need to, and we tried to till this spring - planting corn in bean stubble. It worked really well for us," he says. "We used to chisel plow all of our cornstalks in the fall prior to planting beans the next spring. But we ran into some weather problems, or we didn't get the chisel plowing done. So, we just disked once or twice in the spring and then planted our beans. And we found out we didn't lose any yield by doing it that way," Broer says.

Eliminating fall tillage has been a matter of economics for Broer. "The two main reasons we've gone to less tillage is we can lower our cost of production and we can also save some time.

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