

Reduced tillage increases P&K test readings in soil

NEW HOLLAND — A switch to reduced tillage may give you a surprise bonus after a couple of years. You can probably cut back on phosphorus application and get by with less potash, too.

At least that's been the experience of some longer-term reduced tillage users, says Vern Anstee of Sperry New Holland.

Anstee points out that the benefit seems directly related to the reduced water runoff and lowered erosion. More of the plant food seems to stay in place. Soil test results tend to confirm it.

Early reduced-tillage farmers have been noticing the change for a number of years. Their P and K test readings are running high even when not much fertilizer has been added. The drastically reduced erosion and runoff are the only easy explanation for the puzzlingly high P and K tests, Anstee notes.

Any tillage method that stops runoff will probably do the trick. It probably doesn't matter if it's minimum tillage using a disk or a chisel or no-till planting. But tillage disks have been the tool involved where farmers have reported the unexpected P and K bonus.

A disk can be anything, good and bad, depending on how you use it, says Anstee who is product manager for tillage tools at New Holland. If land is over-disked, the soil is pulverized and soil structure can be destroyed. He warns you may even compact the soil if you misuse the disk.

But today's new range of heavy-duty tillage disks let you avoid most of the disk-related problems of the past. Because they have the heft to cut through the residue of the previous crop, even heavy corn stalks, you will usually be able to plant the next crop with only one or two passes. This ordinarily incorporates enough of the residue to avoid planter problems, but still

leaves enough residue on top to boost infiltration and nearly eliminate runoff.

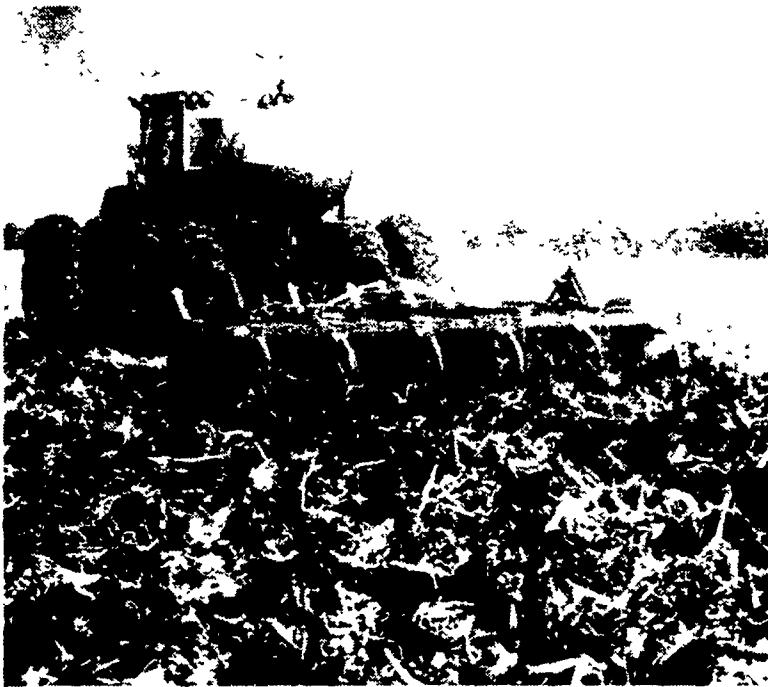
That's probably the key to holding the fertilizer P and K in place, says Anstee. But it's not the whole story at all. The improved soil aggregate structure and potentially reduced soil compaction may be more important in the long run.

The trick is to match the disk to the power. You need enough weight to cut through the residue to whatever depth you need to till. But you have to pull the disk fast enough to toss some dirt, if you want to get the fullest benefit from reduced tillage using the disk route. The same disk pulled too slow won't give you the same benefits. At slower speeds, you'll

probably have to go over the land an extra time — that's a waste of tractor time and fuel plus an additional unnecessary compaction trip.

Pulling a chisel or moldboard plow faster probably doesn't yield the same benefit from the higher forward speed, he adds. A plow usually takes a lot more power to pull faster as compared to slower. The extra power usually means a heavier tractor with more weights added. This tends to cancel out the speed advantage, and you need more fuel, too.

But the tillage disk, if you set it only as deep as necessary, and can go fast enough to get the tith in one or two passes, saves both time and fuel. And, it gets you the reduced compaction bonus, plus the benefit of lower P and K losses to boot.



Trip across field can be saved and fertilizer efficiency improved by applying part of total N-P-K requirement when ground is chiseled.



Farm Talk

Jerry Webb

Research "Doubting Thomas"

The relationship between agricultural research funding and bountiful food supplies is a real one. Although it may be difficult for consumers to see the direct benefit from research being conducted in far-flung agricultural experiment stations and other research locations throughout the country, the benefits are there. In fact, for the past 20 or 30 years consumers have been enjoying and using up a reserve of agricultural research built over the past 50 years or more.

Some of the thinkers in the agricultural research community say that reserve is about gone. Granted we have enough food to eat, in fact we still have stockpiles here in this country, but how long can that continue and how quickly can agricultural research create new reserves of knowledge?

There are those research antagonists who think all agricultural research should be abandoned until farm prices improve, or until the surpluses are all gone. Surely they realize that agricultural research cannot be turned off and on as needed. Most of the research that means anything in terms of farmer and consumer benefits requires years and years of painstaking work.

It can take up to 10 years just to

develop a new variety of soybean. It can take longer than that to perform certain basic research studies and maybe even the answers cannot be sent directly to the farm.

Some research administrators are a little pessimistic when it comes to the future of agriculture. They feel that most of the big breakthroughs have already been made — that there isn't another hybrid corn lurking around the research corner. And yet things keep happening that give hope. Researchers do find answers that make crops more productive and help the consumer hold the line on food prices.

The research administrators through their various organizations are telling the public of the need for greater investment in the whole agricultural research institution. They feel that the manpower and facilities dedicated to this end are being badly eroded and that the result somewhere down the line will be reduced food supplies, higher food prices, and ultimately hunger. That's a long-term outlook, but it's probably a realistic one when you look at the population demands, the steadily dwindling farm base, and the skyrocketing farm production costs.

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Sale Reports

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A Public Auction of farm equipment was held November 27 by George W. Morris, on Mason Branch Rd., off of Rt. 312, 1½ miles north of Ridgely, Md. A large crowd attended the sale.

Some prices were: 400 Int. tractor \$1420, welder \$105, Int. 2000 loader \$1175, Int. 3 pt. hitch w/mower balance head \$425, tire changer \$120, Onan alternator \$820, 2 axle Low-Boy trailer \$3650 and '77 Dodge Colt car \$1300, plus a Ford Jubilee tractor \$1925.

A. Curtis Andrew Auction, Inc. conducted the sale.



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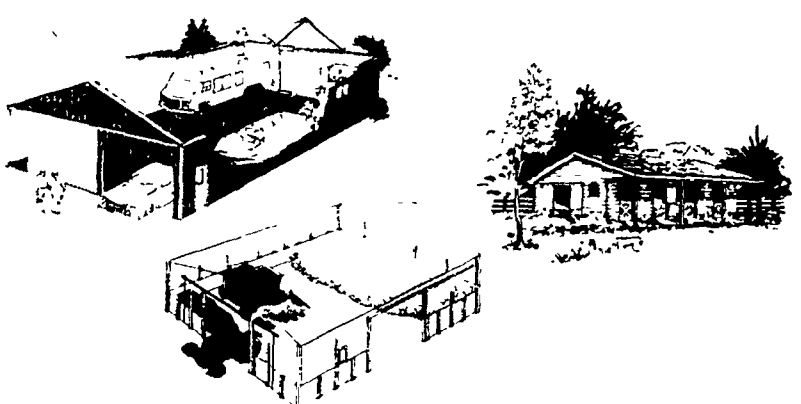
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