



Crop Soil News

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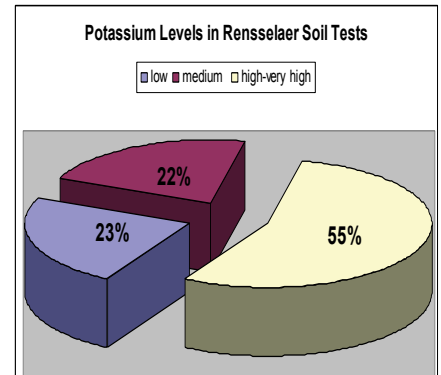
September 2010

"It is the crops that feed the cows that make the milk which creates the money."

Key Fall Management Steps

Last minute catchup

It is not too late to help legumes overwinter. In a summary of soil samples in an Eastern NY county, (Graph # 1) shows that **55%** of the fields soil tested, would **NOT respond** to more potassium fertilizer. Many of these fields are corn fields with manure as 30 tons applies over 250 lbs of potash/acre. **Many of the 45% of the fields that are medium or low and will respond to potash, are legume hay fields.** With the very tight economy, many farms in past years have used their allotment of the fertilizer budget and have nothing left to topdress hay fields. Potassium acts as antifreeze in the plants to help them over winter. It is not too late to apply the potassium as we have a couple of weeks of growth to get it in the plant before cold weather shuts it down. Another winter killer of legumes is low pH. Lime is critical for overwintering legumes. New alfalfa seeding will often grow ok in a low pH, but then die over winter. A soil test will tell you when you are going to get an economic return by adding more lime or fertilizer.



The window is open NOW for Fall Killing Sod's!

Ever since the original research I did in the early 1980's, we have known that fall killing sods gives superior corn stands and yield than spring kill. The optimum time to kill sods in much of the New York/New England/Southern Canada region is between the 1st of October and the 15. Spraying earlier when the soils are still very warm results in a release and loss of the sod nitrogen in the fall. Then when you plant corn the next spring, it is short because you lost the free nitrogen. Conversely, spraying after the 15 of October in some years will get a complete kill, but in many of the years you kill all the grasses, but none of the alfalfa. If the alfalfa goes dormant the spray has no effect. It then costs twice as much to try to control it in the spring. There is no need to wait before or after a frost

Sod fields sprayed in the fall can be no-till or one pass minimum till planted in the spring for a tremendous savings in time, fuel, and soil. In some years it was the difference between a crop and none as the planting window was closed by our increasingly variable weather. For less than \$25 of herbicide and application, the sod can be completely killed between the first and the 15 of October. The next spring it is dry, warm, mellow, and loose enough for no till planting at a cost of less than \$12/acre (this is cost of machine, tractor, and operator of a 6 row planter). The tough perennials are under control so weed control can be a simple, low cost mix.

For those without no-till planters, the fall kill allows for one pass chisel plowing with a leveling devise (see photo at right) such as S-tines or aerating tines implement behind for one pass tillage in sod



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fields. Farmers have been doing this for years. Using the narrowest tines (2 inch instead of 4 inch) it pulls easy, and farmers report the soil works up very mellow. The same tractor with a moleboard takes 3 times longer at a cost of nearly 4 times what a one-pass chisel can accomplish on the same acre.

An increasing number of farmers deep slot (vertical tillage) in the fall (or spring but after manure application) and then plant. Fitted with coulters and rolling baskets, (see photos at right) they work a 15 inch wide zone better than most plows and far better than any primary or secondary disking. Instead of rooting 7 inches, it roots 17 inches deep. All this in one pass! This year some areas had heavy rain early and then all had very dry conditions later. We had a research plot deep tilled and a commercial field next to it that was conventionally tilled. The deep tilled never rolled while the conventional spent considerable time rolled and not producing yield. In years when there were major rains, the deep slotted crop did not turn yellow but kept growing and produced a tremendous yield. The system works very well on heavy soils – giving you loose soil to grow the crop but firm soil between the rows to support machinery.

No matter what your tillage choice, the time to spray is NOW. As you get later you lose some of the control of the broad leaf weeds. Spraying sods in the fall catches most tough perennials when they are trans-locating into their root systems for winter storage. This brings the herbicide to the deep root systems, where it does the most good.

Bottom Line: Move NOW on fall killing your sods.

We have consistently gotten excellent results with .75 of glyphosate or its equivalent and a quart of 2,4,D. Applied this is less than \$25/acre. Spraying yourself is even cheaper. If you have tough broadleaf perennials such as milk weed, hemp dog-bane, trees, jimsonweed, etc.; Dr. Hahn of Cornell suggests swapping the 2,4,D for 2 – 4 ounces of Banvel® or Clarity® (no endorsement stated or implied- read and follow label directions)



Deep zone vertical tillage on left and conventional on right. The superior root system and massive increase in feeder roots support higher yields over a wider range of conditions.

Sincerely,

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