

York hosts 11th Mid-Atlantic No-Till Conference

BY JACK HUBLEY

YORK — Attendance records were broken at this year's 11th annual Mid-Atlantic No-Till Conference, as more than 1700 farmers flocked to the York Fairgrounds on Wednesday for an update on no-till and minimum tillage practices.

Sponsored by the Cooperative Extension Services of Delaware, Maryland, New Jersey, Pennsylvania, Virginia and West Virginia, the conference hosted university scientists as well as experienced no-till farmers who dealt with the theme of solving no-till production problems.

Leading off the morning's discussion was the University of Maryland's Dr. Tony Mazzaccaro who noted that a population explosion in the Chesapeake Bay's vast watershed is responsible for the radical changes occurring in its ecosystem.

Explaining the mechanics of the problem, Dr. Mazzaccaro said that the Bay's nutrient enriched waters promote a massive bloom of algae that prevents sunlight from reaching the bottom. And the decomposition of dead algae on the bottom creates an oxygen deficit that smothers all bottom-dwelling organisms.

The problem originates from the massive amounts of nitrogen and phosphates arriving in the bay via sewage treatment plants and agricultural lands. And Mazzaccaro clearly defined Pennsylvania's role in the bay's degradation by stating that 50 percent of all the nitrogen carried into the bay arrives from the Susquehanna River.

At present both the shad and striped bass fisheries in Maryland are closed to harvest, and the bay's

oyster harvest this year has been the lowest in recorded history.

"If it wasn't for crabs, our watermen would all be on welfare," Mazzaccaro said.

Next at the podium was Penn State's Dr. John Ayers speaking on the subject of disease problems in no-till corn. Dr. Ayers reviewed three diseases that are characteristic of no-till production.

1. Gray leaf spot - A fungus characterized by long, linear lesions, gray leaf spot has the greatest potential for limiting production. The disease prefers a humid environment and overwinters successfully on corn debris scattered on the field.

2. Northern corn leaf blight, race 2 - A fairly new race of this disease and characterized by boat-shaped lesions. This one does as well under conventional tillage as no-till conditions.

3. Stalk rot and leaf rot - Since stalk rot is related to moisture stress, the disease is less prevalent under no-till conditions that tend to hold water. There are several varieties of ear rot, but all are especially prevalent under cool, wet conditions between silking and harvest.

Concerning alfalfa problems common to no-tillage, Erik L. Stromberg, from the Virginia Polytechnic Institute and State University, described the life cycle of Sclerotinia crown and stem rot, a disease capable of eliminating an entire field's production.

The disease spends the summer months as a fungus that generates spore producing stalks in the fall. After these spores are released, they infect the leaves and then lie dormant throughout the winter. With the onset of warm weather, the fungus grows down to the



Farmers attending the Mid-Atlantic No-Till Conference on Wednesday had an opportunity to have their no-till questions answered during a "Quiz the Experts" session involving a panel made up of University crop specialists and experienced no-till farmers.

crown of the plant, and can also spread across dead tissue on sod. Since the disease is prevalent in clover sod, Stromberg recommends planting a non-host crop into the sod before planting alfalfa.

Following these presentations, farmers David Brower of Marshall Va., and Wayne Harpster of Spruce Creek, Pa., discussed their procedures for successful no-till farming. Serving as moderator was Extension forage crop specialist Lester Vough of the University of Maryland, who observed that the technology is now available for successfully establishing stands of no-till alfalfa if more intense management is applied.

Brower stated that his crop rotation is centered around his hay fields, with corn planted only when renovating a hay field. His alfalfa stands typically last six to eight years.

Though Harpster said that at one

time his alfalfa stands were maintained for a similar duration, he currently uses a three to four-year rotation for economic reasons and to break disease cycles.

Harpster seeds at a rate of 12 pounds of alfalfa per acre with Furidan and likes to get his seed planted as early as the beginning of March to beat the weeds and get an extra crop in the barn or silo. Brower seeds 14 pounds per acre with Furidan, and is pleased that it doesn't take lots of horsepower to pull the no-till seeders.

Speaking on cover crops for no-till, the University of Maryland's Morris Decker pointed out a number of cover crop advantages including reduced soil erosion, nutrient leaching and evaporation. Decker's recommendations included getting a cover crop planted in the harvested corn as soon as possible and letting clover grow as late as possible in the spring for a good nitrogen fix.

Discussing the effects of no-till farming on soils and crop yields, Purdue University's Donald Griffith noted that the better that soil is drained, the less tillage is needed. The success of no-till is also related to latitude, with no-pow systems being more difficult to maintain the farther north they are applied.

Griffith noted that compaction in corn fields will have a measurable effect on corn yields, as studies have revealed a 10 to 20-bushel per acre increase in yield in corn rows that have not been compacted by a harvester, over those rows that have.

Addressing no-till weed control problems was Penn State's Nathan Hartwig who noted that a number of perennial weeds are on the increase in no-till fields because of their extensive root systems that lie beneath the reach of no-till herbicide applications.

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Farmers David Brower, (from left) of Marshall, Va., and Wayne Harpster of Spruce Creek, Pa., offered their insights on no-till farming based on extensive personal experience. Moderator was Lester Vough from the University of Maryland.



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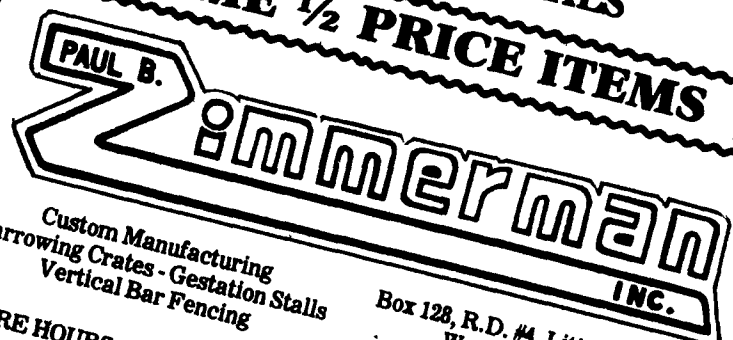
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