



The Southern Turfgrass Association, headquartered at Memphis, Tenn., continues to expand. Their spring show, above, held this spring at Memphis drew 336. Big record, however, was addition of 61 new members. New officers elected were: Jerry Hilycord, Memphis CC, president; J. D. Curtis, Decatur CC, Ala., vice-president; and Reg Perry, Turfair, Inc., secretary-treasurer. A one-day turf clinic is scheduled for Aug. 23 at Rivermont Inn, Memphis.

Soil Often Holds Secret Of Pesticide Behavior

Some new insights into the behavior of pesticides have been revealed by Dr. Jerome B. Weber, an associate professor of crop and soil science at North Carolina State University.

Dr. Weber said the makers and users of pesticides are often puzzled by some of the results they get.

The action of pesticides becomes less puzzling, he explained, when a person considers the physical and chemical properties of the soil as well as the physical and chemical properties of the pesticide.

Pesticides, for example, can be acid or alkaline, volatile or non-volatile, soluble or insoluble, positively charged or negatively charged, or not charged at all. Clay colloids and organic colloids in the soil are negatively charged. Metallic oxides are positive. Soils, of course, can be acid or alkaline and contain varying amounts of moisture.

Dr. Weber offered several examples of how these factors can affect pesticide behavior.

Paraquat is 100% water soluble and is positively charged. Clay colloids, which are negatively charged, attract it readily and bind it very tightly.

DDT has no charge, is non-vola-



M. Joseph Yoder, center, receives the outstanding student award from James Smith, right, director of the Michigan Turfgrass Foundation, and Norman Kramer, superintendent at Point-O'Woods CC, Benton Harbor, Mich.

tile, is extremely persistent, and is usually found attached to the fatty portions of organic soil colloids.

The herbicide 2,4,5-T is moderately soluble and negatively charged. It is easily washed off or leached through soils unless they are very acid. Ester formulations of 2,4,5-T are uncharged and have high vapor pressures. They readily volatilize into the atmosphere.

Other herbicides, such as Trifluralin and EPTC, also vaporize easily, especially under warm, humid conditions. These compounds must be incorporated in the soil to be effective. If applied without incorporation or to hot, wet soils, poor weed control can result.

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