CULTIVATION AND INCORPORATION

Tim VanLoo, Alexander Kowalewski, and John N. Rogers, III

Golf course superintendents are faced with high demands on their putting surfaces beginning when the snow melts and not ending until it begins to fly again. It is well documented that putting surfaces that are cultivated regularly will perform better under stressful conditions. The problem that occurs with cultivation is surface disruption and the subsequent time for healing. Superintendents are forced to use smaller tines or slicing to decrease surface disruption and keep the golfing public happy. The smaller tines and slices are good for quick playability, but the issue is applying sand topdressing and filling the voids with sand. Brushing the sand is a common method to move the sand topdressing into the cultivation voids. Forced air is another method for incorporation, and recent equipment utilizing this method warrants comparison.

A study was initiated in 2006 at the Hancock Turfgrass Research Center that compared three sand incorporation methods with two types of cultivation methods at two different rates. The sand incorporation methods were traditional brushing, Buffalo Turbine blower (Springville, NY), and The Air Drag (Alma, GA). The cultivation methods were the Graden (Victoria, Australia) with 2mm and 3mm blades both with one inch spacing and core cultivation with a 3/8 inch tine at 2x2 inch spacing and a ¼ inch tine at 1.25x1.3 inch spacing. Specific topdressing amounts were applied to each treatment to match the material harvested with the different types of cultivation. Access topdressing was collected to indicate which incorporation methods worked the best. Data indicates that traditional brushing is not as effective as moving sand with air.