The sod-growing process was never quite like this...

Compost sludge replaces conventional topsoil

By TERRY BUCHEN, CGCS

A new system for growing premium golf course grass sods has been perfected using a compost-sludge mix instead of conventional topsoil. Composts and sludge are spread over a sheet of plastic, seeded, and then irrigated very carefully. The primary rooting of the grasses runs along, rather than penetrating the plastic, and thus knits the growing medium into a viable sod.

Depending on the grass species, a new sod can be produced in six to eight weeks for a tall fescue variety; or 10 to 12 weeks for any variety of bentgrass on a 30-square-yard lightweight roll. Because of the plastic concept, no pesticides, including herbicides, are used in establishing the sod or maintaining it. Since the root system is not "cut off" by a sod cutter blade, and because of the growing medium, an extensive root system is established. The roots knit quickly and directly onto the desired topsoil. Transportation costs are kept down because of the light weight nature of the compost/sludge compared to conventionally sod grown on topsoil.

Three or more crops can be grown on the same acreage per year when the sod is contract grown. Laying the sod is much easier with the big-roll concept, which will help reduce costs for sod laying crews that won't be needed.

The system was developed by Dr. Henry F. Decker, a botany professor at Ohio Wesleyan University in Delaware, Ohio. Decker has been experimenting growing sod on solid surfaces since the 1960s. Decker has tried growing sod on plastic using ground corncobs, seed and fruit hulls, composted wood chips, and mulches.

"We kept coming back to the most ubiquitous, perhaps the most difficult of all wastes-sewage," Decker said.

Decker received free Com-Til, a composted sewage product from the city of Columbus, Ohio, to conduct his research. Columbus began composting sewage in July 1980. In 1990 about 15 percent of the 55.6 million gallons of sewage from its Southerly treatment plant has been composted.

In some years, about 50 percent of the sewage is composted, depending on how well the equipment runs. Last year the city sold about 12,000 cubic yards of Com-Til, the largest amount of which was bought by topsoil haulers who blended the product with topsoil to increase the organic content.

Decker recently patented BioSod Turf and plans to market the grass-growing concept. "To be economical, we have to produce the sod close to the compost site," he said. "We have looked into setting up a farm close to the treatment plant." Decker can be contacted at Buckeye Bluegrass Farms, Inc., P.O. Box 176 in Ostrander, Ohio 43061-0176; 614-666-2082.