SAND GREENS: WARNING!
PROCEED WITH CAUTION!

By: Roger Kisch
Southview Country Club

In 1980, after much discussion with the Board of Directors and Greens Committee, Southview Country Club decided to rebuild two of its worst greens. After a great deal of thought, I consulted with local experts and decided to construct these greens out of a high percentage of sand.

Although we had the soil tested and built according to university specifications, the greens were unmanageable and unplayable the next three seasons. The following are just some of the difficulties I encountered:

1980...Seeded May with Penneagle
..Cut first time May 19
..Opened June 20 but turf wasn't ready-too thin, grass didn't have any body.
..Played "temporaries" off and on during July and August-turf wouldn't thicken up, very weak. ..September took soil test and found P.H. too high. Calcium and Mg. too high also. Initiated treatment program.
1981...Started second season on new greens.
..Continued to bring P.H. back in line.
..Applied all nutrients, etc. "in the book" and nothing seemed to work.
..Applied nitrogen-turf got soft and lush.
..Did not apply nitrogen-greens didn't grow or fill in.
..August obtained professional assistance from University of Minnesota. They believed it was Micro nutrient deficiency. I tried many, but with no response.
..Playing temporary greens again and members began losing their patience.
..September U.S.G.A. Turf Advisory made a visit and suggested a soil test by Texas A&M. Results: High silt and clay content as continued on page 5

NEW FROM CUSHMAN MOTOR COMPANY, INC.
THE SANFU
TPV 600

With the Sanfu TPV 600, the work horse for hauling people and cargo off-road. Its 27 h.p., overhead cam, gasoline engine and four-speed, syncromesh transmission give the Sanfu power-plus.

The engine mounted over the rear wheels and turf tires enable the Sanfu to go where you want to go off-road under about any conditions. Its size, just over 10-feet long and 4½-feet wide, give it the agility to get around in tight places.

Standard features like rack and pinion steering, two-stage hydraulic brakes, independent four-wheel suspension, and a pickup bed with both sides and a tailgate that fold down, make it a dream to operate.

The standard fold-up personnel seat in the bed plus options like dump beds, stake beds, etc., make it an ideal off-road vehicle in agriculture, turf, industrial and fun applications.

Jerry Commers

2909 E. FRANKLIN AVENUE • MINNEAPOLIS, MINNESOTA • PHONE: (612) 333-3487
well as high fraction of course and very course sand in mixture. Infiltration rate from 0.0 inches to 0.6 inches per hour.
(U.S.G.A. Spec. 4 to 10 inches per hour).
..U.S.G.A. suggested rebuilding both greens. Membership would not tolerate any more inconvenience. Therefore, U.S.G.A. advised aerifying, removing cores and topdressing with different sand.

1982..Beginning third season with greens continuing in poor condition.
..Aerified and topdressed 7 times this season. ..Greens improved slightly following each aerification, but turf still not in good shape.
..Played "temporaries" a week or so this season-greens slightly improved by fall.
..P.H. almost okay.

1983..U.S.G.A. persists in their opinion to rebuild the greens but agree they are improving slightly.
..I continued aerifying program 3 times in 1983 because I hoped to build some thatch.
..Fall-greens are almost acceptable state, have changed soil top 2 to 3 inches. Starting to see roots over 1 inch for first time since initial seeding.

SUMMARY: I knew I was gambling when I constructed these greens with high sand content, but I never imagined that it could have been so difficult to grow grass on them.

This article just touches on the problems that Southview Country Club experienced with these greens. So when planning construction, proceed with caution and get more than one expert's opinion and make sure you use the right sand!

TAKE-ALL PATCH INFECTION
by JEFF MARKOW

Jeff is presently a student at Pennsylvania State University in the Turf Management Program and is interning at Minneapolis Golf Club this year. The technical information in this article has been documented by Patricia Sander, a research associate at Penn State.

Last summer several Minneapolis area golf courses were besieged by a new monster on the block -- take-all patch (formerly Ophiobolus patch), causal organism Gaeumannomyces graminis var. avenae (herein GGA). At