



Experts in charge of growing fine golf turf, in attendance at short course session at University of Minnesota, check to see just what may be growing in the locks of Mike Sanko, vice-pres. Minn. Assn. of Greenkeepers. Those checking are (l. to r.): Victor Larson, Minneapolis GC; Leonard Bloomquist, Superior; Herb Graffis, editor of GOLFDOM; and Prof. L. S. Dickinson, Massachusetts States college.

however, did not seem to be put out of commission as evidenced by the good growth of plants which would tolerate the arsenate. I have been told that 900 lbs. of lead arsenate per acre has been used on golf greens without interference with the turf. If added before seeding, the growth of the grass was rather slow at first. If added to establish the turf, the grass was greener and more sturdy than without the arsenate. Nevertheless, we are not advocating such indiscriminate use of lead arsenate on golf greens—we have merely used this as an illustration to show the buffering effect of clay and organic matter and by analogy reach the conclusion that beneficial soil microbes, if protected by organic matter, can take plenty of poison. It is quite possible that certain groups of microbes would be killed by rather weak poisons, but what do we care about a few millions? Often the soil would be better off without them.

The killing off of some of the micro-population occurs naturally at times. Several droughts have been known to kill off more than half the microbes in soil. With rain, the survivors become very active, decompose the dead ones and with a production of nitrate, you then have the striking green growth of grass and other plants after a long dry spell. In a short time, however, re-inoculation occurs from

dust in the air, brought, perhaps, from another part of the country and conditions revert to normal.

So in the applications of fungicides, if part of the micro-population is killed, most of the useful ones most probably would still be alive and able to carry on the micro-biological processes in the soil, viz., the breakdown of complex organic substances into simple forms and preparation of these for the use of green plants.

**A** PHILADELPHIA district golf authority notes what he considers a bad tendency in golf, that of making youngsters and women beginners feel that they have to have caddies.

He says that when these players are on the course during light traffic they should be encouraged to ease into the game at the lowest possible expense. He charges that in some cases caddymasters who get a percentage of caddie fees as salary are responsible for practically forcing caddies on the tyros, or embarrassing them to the degree they keep away from golf.

**M**ALE members of the Carquinez GC at Giant, Calif., are taxed a dime every time they wear spiked shoes in the club's dining room. Proceeds go to the women's golf committee. The club also has a lively team competition; the Dutch vs. Irish.