

MANKATO GOLF CLUB AND THE USGA

By Boots Fuller, Superintendent



As many of you already know, the Mankato Golf Club embarked on a greens and tees renovation program under the guidance established by the USGA. I would like to share some of our findings since Pat O'Brien, Turf Agronomist from the USGA Greens Section, visited our golf course back in September, 1980.

At that time we had just gone through a season of much pain, as heat, humidity, and excessive late summer rains practically decimated our golf course. Our greens and tees were under severe stress most of the summer. The presence of 80-90% poa annua on both greens and tees was obviously part of our problem. Certainly another part of the problem was the type of material in our greens and tees. Basically, we had clay material which tended to become very hard with the heavy play experienced at our course. The resulting compaction created other problems with the heavy late summer rains, and in an effort to "soften" up the greens the irrigation system was overextended and the mess which was created was more than even I cared to think about.

After some discussion, Pat O'Brien was called in and offered the following program as a guideline. His recommendations were implemented immediately. 1) Aerify with 5/8" tines spring and fall, remove cores, heavy topdress with 80-85% sand base material; 2) reduce irrigation to bare minimum; 3) more frequent spiking; 4) extensive overseeding program after each aerification and spiking, (we chose Penneagle for the greens and blends of Baron and Parade and Aquila bluegrass with Derby and Delray Ryegrass for the tees); 5) gypsum and sulfer application; 6) reduction of fertility to 1 1/2-2 lbs. nitrogen per 1000 sq. ft.

It was determined that our basic problem was no root system. Poa has short roots to begin with and what little else we had couldn't penetrate the hard and compacted soil. So the USGA program was designed to help us build a root system. The reasoning made sense to me. Keep the top soil loose with frequent aerifications and spikings, replace with heavy sand mix, and force the new seed to work to greater depths by not overwatering and over-fertilizing.

We also made some changes in our mowing program by taking the triplex greens mowers off the greens and replacing them with walk type mowers. The triplex mowers only added to the compaction problems. We now mow greens and collars with "walkers" although we still mow tees with the triplex mowers. Through 1981 and 1982 we had to make some additional modifications, such as adding potassium to the greens, raising the sand content to 85-90% level and adding iron sulphate. But basically we are still on the same program that we initiated in late 1980.

We have had soil tests taken twice since we started this program to monitor changes that are occurring with the turf management practices we are using. Results are already beginning to be noticed. The resiliency of the greens is without question the most significant factor noticed by the golfing membership. Progress is being made in this area. Our greens are greener, smoother, faster; the Penneagle is cutting into the Poa population; and the root system is definitely deeper than ever; thereby giving us what we feel is better resistance to disease. We are safely cutting our greens at 1/8" or less and with the vertical mowing program, the quality of the putting surface is the best that I can ever recall. During the summer of 1982 we consistently rolled between 9 1/2 and 10 1/2 feet on the Stimpmeter. We cut our tees at 5/16" and the same type of quality is present there.

There is little doubt that we shall continue to follow the USGA guidelines throughout 1983. Our relationship with Stan Zontek and the entire USGA staff has been super. We know that our continued success in developing high quality golfing turf depends, in part, on maintaining that close relationship.