mixture should range between 4 and 10 per cent, according to H. L. Howard. About 4 to 6 per cent of montmorillonite appears to be correct. According to Howard, it is preferable to halloysite and illite but this is not final. It should be emphasized that the silt content should be kept to a minimum since the silt fraction often contributes to the problems of compaction and poor interior drainage.

Use of Peat

There remains about 10 per cent organic material (peat) to be added. W. L. Garman of Oklahoma State University has found that more than 20 per cent peat by volume is detrimental to the putting mixture. Thorough mixing of the three components is a must.

Although peat is an old standby, consideration should be given to certain synthetics and other new materials now available. They may be more desirable than peat in some cases and certainly warrant testing both in the lab and in the field.

Frank H. Goldthwaite Dies in Ft. Worth Home

Frank H. Goldthwaite, 52, who founded the Texas Toro Co. upon graduation from college in 1928, suffered a fatal heart attack in his home in Ft. Worth on Feb. 28. Joined by his brother, Howard, in 1929, Mr. Goldthwaite covered the Southwest in the early years after the company's organization selling mowing equipment, sprinklers, fertilizers and turf supplies. He worked out of Ft. Worth until after World War II and then opened divisions in Houston, Dallas and San Antonio, the latter in 1958.

A strong believer in education, Frank helped establish the Texas Turfgrass Assn. in 1947 and sponsored scholarships at Texas A & M and Texas Tech in turf management. He was a member of the GCSA and a dir. of the O. J. Noer turf research foundation.

Mr. Goldthwaite is survived by his wife, Aniela, who will operate the Texas Toro divs. as pres. of the company, two daughters, Mrs. Hugh Pitts and Frances, and a son, Frank, Jr.