

of 120 pounds of potash and 40 pounds of phosphoric acid per ton. The potash in the marl is, at best, only half as available as the potash in muriate of potash. In other words, we cannot assume that more than 60 pounds out of the 120 would be available within a reasonable time for crop growth. Actual potash in muriate can be bought at about five cents a pound. Hence, 60 pounds of available potash in marl would be worth \$3.00 per ton. The phosphoric acid in the marl is also about 50 per cent available. Assuming that available phosphoric acid is worth $4\frac{1}{2}$ cents per pound, we have in greensand marl, let us say, 20 pounds of available phosphoric acid at $4\frac{1}{2}$ cents, or 90 cents per ton. It is evident, therefore, that \$4.00 to \$5.00 a ton would be about the maximum value that may be assigned to greensand marl. Even at this figure, purchasers might hesitate to use greensand marl if the distance from the nearest freight station is more than one or two miles and the roads not in the best of condition. It goes back, after all, to the same question of concentration as well as solubility of plant-food. Under existing conditions, low-grade materials containing a small proportion of plant-food, and that but of a low order of availability, can not and should not compete with the more concentrated and more soluble fertilizers. Exceptions will be justified only where such low-grade materials can be had at a low price and so very near the point of consumption as to make the cost of transportation and handling quite low.

(Dr. Lipman's article is written from a standpoint of broad agricultural application. The fertilizing constituents of greensand marl (potash and phosphoric acid) are of comparatively minor value in the production of turf, and care must be exercised not to use them to excess, which would encourage invasion by weeds. The discussion on page 203, Vol. I, of THE BULLETIN is of value in this respect.—*Editors.*)

Annual Reports of Golf Clubs Desired

The Green Committee is very desirous of securing a copy of the Annual Report of each golf club that issues such a report. If you have such, will you kindly send a copy at once to the Executive Secretary?

The Green Committee of the U. S. Golf Association is always glad to publish items showing how work around courses can best be done.

SEED TESTS

The Green Committee will be glad to examine samples of grass seeds submitted to determine whether or not they appear to be as represented. It is, however, found impossible for the Committee to conduct germination tests. Indeed, the germination test can be just as satisfactory, and much more promptly, conducted by the clubs themselves. In the matter of the examination and testing of seed, attention is invited to statements on page 16, 38, and 214 of the 1921 Bulletins. The Committee will discuss the matter of testing seeds for germination more fully in the February number of The Bulletin.

BACK NUMBERS OF THE 1921 BULLETIN

The Green Committee can furnish to member-clubs back numbers of the 1921 Bulletin at 20 cents per copy. There is on hand a fair supply of most of the numbers, but not of all.