

Barnyard Manure Made Artificially

Manure from livestock is one of the oldest as well as one of the best known and most dependable fertilizers. Its beneficial effects have been the subject of much speculation and study because they are seemingly out of proportion to the relatively small amounts of phosphorus, potassium, and nitrogen it contains. However, the lack of knowledge regarding the secret of its effect on plant growth has not deterred farmers and gardeners from using it. The greatest difficulty in connection with its use is its scanty supply. Of the numerous investigations recently conducted, those of the Rothamsted Experiment Station are the most promising of practical results. They may be summarized very briefly. The Rothamsted station has found that straw may be converted into a good quality of manure by treating it with a soluble nitrogen compound, such as sulfate of ammonia or nitrate of soda. The former has been used at Rothamsted because of its availability. The method suggested by the investigators involves the composting of fresh straw with sulfate of ammonia at the rate of 100 pounds of the sulfate to one ton of straw. Since straw breaks down most rapidly in combination with a neutral or alkaline solution of nitrogen, and sulfate of ammonia tends to produce an acid reaction, it is recommended that 100 pounds of finely ground limestone be added to the formula to correct the acidity. Straw takes up moisture very slowly and consequently ferments slowly. This difficulty it was found could be overcome by watering the straw lightly. This starts fermentation, which renders the straw more absorbent. A second watering should be given at the end of two days, and when the pile of straw is uniformly moist the ammonium sulfate and lime should be scattered over the surface and water again applied freely. After this treatment fermentation takes place rapidly, especially if the pile be turned over frequently with a fork to admit air. When the straw is broken down thoroughly it is ready for use.

It is not contended that manure made by the foregoing method is equal in fertilizing value to good barnyard manure, but it offers a valuable source of humus and nitrogen and to this extent it is a very useful fertilizer. The object of attention to the Rothamsted experiments in THE BULLETIN at this time is for their bearing on the making of compost. Green-keepers will appreciate the possibilities in the new method of producing manure and doubtless will do a little experimenting of their own the next time they are in need of compost.

Notes

Tee markers.—Good tee markers can be made by using a polo ball or small croquet ball and a 20-penny round spike. Bore a hole in the ball, cut off the head of the spike, and insert in the hole about $1\frac{1}{2}$ inches. This marker will not injure the grass as does the plate.

Eradicating crawfish.—Clubs which are troubled by crawfish holes in low and wet spots may find relief in the method used on some of the aviation fields during the war. The crawfish puddle a little lake at the bottom of each hole. Either drop or squirt a couple of tablespoonfuls of gasoline down each hole and cover the top with the borings or with earth. The crawfish and eggs are destroyed by the fumes and oil.

“Closed down for repairs.”—Every green committee should exercise its authority and close its course to play whenever because of heavy rains or spring thaws the course is likely to be damaged. A few “nuts” who would attempt to play if the mud was knee-deep should not be permitted to do damage that cannot be repaired.

Keeping up appearances.—The ordinary citizen still has the idea that a golf club is necessarily a wealthy concern. Silly as it may seem, some golf clubs still spend a lot of money to perpetuate the citizen’s illusion. It astonishes most people to learn that nearly every golf club is only about two jumps ahead of the sheriff. Instead of spending money to “keep up a front,” isn’t it about time for every club to study economy and efficiency in its activities so as to keep within its income. There is a growing belief in golf circles that it is wise to spend more of the club’s income on the course and less on maintaining a luxurious house.

Grass roots and deep rooting.—All perennial grasses make a new set of roots each year, or in other words, the roots are annual. These roots extend nearly vertically and fill the soil with their slender branches. The depth to which the roots extend depends in part on the kind of grass, but more on the character of the soil. Looseness, richness, and dryness in a soil tend to induce large root-systems. Even in poor sand, grass has an enormous root-system. On the other hand, compactness, poorness, and dampness in a soil tend to restrict root development. The importance of deep rooting is not as great as is commonly assumed. To a great extent the grass accommodates itself to the soil in which it is growing. The really important thing is to have the soil as near to the ideal as possible. The roots will take care of themselves.

Concrete work.—The green-keeper ought to be a Jack of all trades, and among other things he is frequently required to use concrete. Most of the leading cement manufacturers put out booklets concerning the making and use of concrete on farms, giving valuable tables of quantities, mixes, suggestions, sketches, and the like. One of these booklets is a handy thing to have around.