

SEASONAL NOTES.

THE FARM.

The Problem of Inferior Composition of Pastures.

THERE is evidence in the main grass-farming districts of a tendency on the part of both dairy-farmers and sheep-farmers to continue using swards composed of inferior plants when it would be relatively easy and distinctly profitable to replace them with swards consisting largely of more productive pasture-plants. This is particularly true of the many farms on which it is customary to experience shortage of feed at one or both of the critical seasons of low direct production of pastures—*i.e.*, the late-winter and early-spring period and the late-summer period.

There are three basic facts in this matter. In the first place there are inferior pastures of which economic improvement is or at least is considered to be impossible in the light of our present knowledge. Secondly, such pastures are not at all as numerous as many seem to believe, and additions to our experience are periodically making them less numerous; for instance, the use of subterranean clover makes it possible to improve remarkably certain poor pastures, whereas payable means of improving these pastures without using subterranean clover are not known. Thirdly, after making full allowance for the dwindling number of pastures which we do not know how to improve economically we have thousands of pastures which can be improved profitably by one or more of the following practices: top-dressing, surface-sowing of seed, and resowing on a cultivated seed-bed.

While poor pastures can often be improved substantially by suitable top-dressing, it should be borne in mind not only that the repairing of pastures by top-dressing alone is usually a relatively slow process, but also that the amount of improvement possible under normal management depends to a large extent upon the plants which are present at the outset, and, because of this, at times it is not as great as is desirable.

In certain circumstances which are not at all uncommon the surface-sowing of suitable seed in combination with appropriate top-dressing gives much greater and quicker improvement than could be obtained by top-dressing alone. Surface-sowing of two distinct types has on occasions been carried out successfully on poor pastures. Firstly, there has been the use of a mixture designed to give a good mixed permanent pasture; of this the total experience is not extensive, and, further, failures from such surface-sowing must be viewed as a possibility. Secondly, especially in recent years, surface-sowing has often been confined exclusively to the use of subterranean clover, and this in quite a satisfactory percentage of cases has been attended with distinct success when the pastures have been so open at the time of surface-sowing that the seedlings of subterranean have been able to establish themselves without the competition for a foothold in the soil and for a supply of sunlight which they have to face in dense swards, say, of brown-top, for instance, on which surface-sowing has been far from uniformly successful.

By the foregoing statements it is intended to indicate that top-dressing, or top-dressing in combination with surface-sowing, at best is a somewhat uncertain or imperfect means of improving poor pastures. Hence, frequently the case for the renewal instead of the repairing of poor pastures is a strong one. The repairing process, however, may be the best course when the farmer is handicapped in regard to finance or labour or when all the equipment to be used in the work of repairing would have to be purchased. Again, the repair of pastures may be the only possible course, as, for instance, when the land is rough or timbered or when the soil is so light and subject to wind that the danger of erosion forbids cultivation.