

and bring success. We believe that successful farming and maximum production can only be achieved by the application of the teachings of science and practical experience and it was these teachings we wished to bring home to the farmer in the most forceful way possible.

And, secondly, I wish to say that while we urged that every available acre of suitably prepared land be put under crop, we urged still more strongly that the effort be made to obtain a larger yield from the acreage at present under cultivation. There is unfortunately too much room for improvement in this latter regard. Our crop yields in general are much below what is possible and we believed there would be a better result and more profit to the farmer in bringing up his yields than in extending his area under cultivation, although there are places where both may be possible and desirable. To this end we emphasized, primarily, the need of greater attention to methods of increasing soil fertility—drainage, more thorough tillage, more liberal manuring, the growing of leguminous crops, the use of fertilizers. Other matters were the fall preparation of the land, the importance of seed selection, the cultivation of the hoed crops to produce an earth mulch and thus conserve soil moisture for the use of the growing crop—and turning to live stock, their breeding, feeding and care. These then constituted the chief themes of our addresses and writings. To-night we can only rapidly survey those which have to do with the soil, and I have chosen them because of their fundamental character. But many of the other subjects are almost of equal importance.

SOIL CULTIVATIONS.

DRAINAGE.—Speaking generally, drainage is fundamental to the greatest measure of success. There are light and sandy loams underlaid by sand or gravel which need no sub or artificial drainage, but for clay loams it is essential for the best results, not merely to take away water in the spring, and allow early seeding, but to make the soil more moist throughout the season. No amount of surface tillage, no amount of manure or fertilizer can ensure maximum crop production on a poorly drained soil. Surface evaporation is slow in the early months of the season. Tile drainage is needed therefore that the heavier soils may be worked to advantage before the seeding time passes. Poorly drained soils are water-logged soils, and this means a condition absolutely injurious to growing crops, for the root system needs air. Crops can die of suffocation, even after they have got a fair growth. Poorly drained soils are cold and wet.

There are thousands and thousands of acres in the Dominion that need tile drainage before they can be made to do their best. It is