

soil, and the special object the farmer may have in view. The object of ploughing early is twofold. First, to stir the ground and put it in favourable condition to receive and absorb moisture; and second, to keep down the vegetation. The subsequent tillage, by harrow or cultivator, puts a nice soil mulch on the top, which is favourable to the rapid and continuous germination of the weed seeds in the soil, as well as to the forming of a fine tilth on the top to retain the rainfall that is received. The depth to which ploughing is done is dependent upon the amount of moisture that it is desired to store. If it is in a part of the province subject to drought the ploughing is done deeply, thus increasing the storehouse for moisture. On the other hand, if this method is too conducive to luxuriant vegetation and slow maturity, a shallower furrow is turned. Early done breaking or what is known as back-setting, both of which are practically "summerfallowing the prairies," give the same good results as summerfallowed land. On the other hand it was found that fall and spring ploughing, when performed after the fashion in vogue in Eastern Canada, and left unharrowed and exposed until seeding operations were undertaken, were invariably productive of very unsatisfactory results. The warm winds, sweeping over the land, dried out the naked exposed furrows, while the stubble that had recently been turned in, cut off almost completely any communication between the subsoil and the furrow soil, as a result of which a dry season was most disastrous to the growing crop. The proper practice, and the one followed by the best farmers, is to harrow immediately after plowing, or, in fact, at the same operation, which not only assists in packing the soil, but also in placing it as quickly as possible in a condition where evaporation is reduced to a minimum. This, followed by successive harrowings and careful packing, usually produces on an average year from twenty-five to thirty bushels of wheat to the acre, if too generous seeding is not indulged in. All these aids, having in view the conserving of soil moisture, the promoting of capillarity, and the solidifying of the seed bed, produce most satisfactory results.

#### *Good Yields from Summerfallow.*

No one could believe the beneficent effects of such tillage until he had actually experienced them. As an instance in point, let me tell you of the experience of a prominent early pioneer. During the early settlement of Saskatchewan the rainfall, particularly in the western half of the province, was so limited, that many farmers became convinced that cereal growing could never be carried on successfully without supplementing in some way the scant precipitation. Sir Lester Kay, who was managing a number of farms along the Canadian Pacific Railway, equipped his several farms with water carts in the vain hope of furnishing in this way an adequate supply of moisture. At the same time, or at least in nearly every season, there was falling from the heavens sufficient moisture for the growth of his crops, but his method of tillage permitted this moisture to evaporate. All that was required to absorb and retain it for subsequent use was an intelligent method of soil culture.