

## Soil

The soil along the Bow Valley, a black sandy loam, underlaid with a good clay subsoil, is rich in the accumulated humus of centuries. This with the silt deposit of ages has produced a soil of great depth and of a richness almost beyond belief. The gently undulating hills and rolling prairies of this valley are devoid of rock, sage brush or cactus, so commonly found south of the line. These lands are ready for the plow without an expense of \$3 to \$5 per acre for clearing, which usually is required in the Western and South-western States.

It is recognized that there are certain substantial agricultural advantages in connection with lands located in sub-humid districts. It is a fact that the richest lands in America lie in the vicinity of the 100th Meridian, where the rainfall is the lowest. The reason for this is perfectly clear. In humid countries, the soil is continually subjected to leaching by heavy rains. The water penetrates the sub-soil, washing with it valuable plant foods, which it is thus impossible to retain near the surface, where it is required for the sustenance of the crops. This accounts for the worn-out lands of the Eastern States, as compared with the lands in the semi-arid districts of Oregon, Washington and Idaho, that have been cropped with winter wheat, year after year, without showing any signs of depletion. The soil of the Irrigation Block is amongst the richest in America, and retains all the valuable constituents that nature has stored up during past centuries.

It only awaits the plow to yield up its treasures. The opinion expressed by Professor Shaw that "there is greater wealth in the upper twelve inches of soil in Alberta than in all the gold mines in America," is nearer the truth than is generally supposed.

The marvellous growth of wild grass (tall bunch grass) with which these hills and plains are carpeted, furnishes indisputable evidence of the soil's fertility.

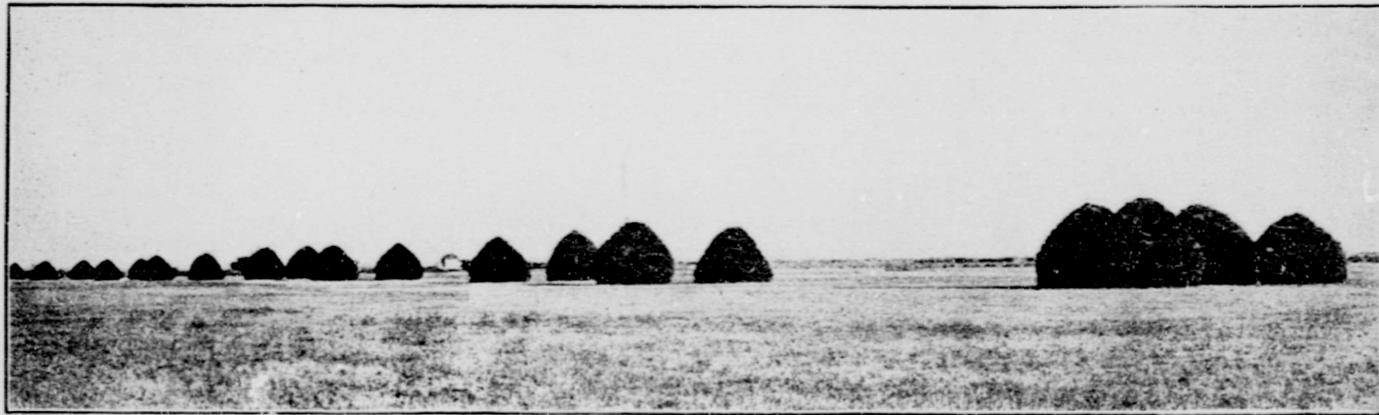
The subjoined extracts from a report by Prof. F. T. Shutt, M.A., F.J.C., F.C.S., F.R.S.C., taken at various points along the Canadian Pacific Railway Company's Bow River holdings, is one of which the Canadian Pacific Railway officials are justly proud.

"Ottawa, Ont., Nov. 16, 1906.

"Notes on the character of the soil between Langdon and Gleichen, Alta., on the lands of the Canadian Pacific Railway Company.

"The first examination was made a few hundred yards north of the railway station at Langdon. The surface soil was found to be a black, heavy loam, evidently well supplied with humus (semi-decomposed vegetable matter), and containing such a proportion of clay as to constitute it a 'strong soil.' Technically, it would be classified as a clay loam.

\* \* \* The subsoil is a heavy chocolate colored clay. The probabilities are that analysis would show considerable percentages of organic matter and nitrogen in this clay—at any rate, for some few inches—as the surface soil, characterized by such rich stores of these constituents, passes without any strong line of demarkation into the subsoil.



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