Some Profiles of Representative Western Soils

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It is the purpose of this paper to present some of the more representative and pronounced soil profiles of the west which are of widespread occurrence and of suggestive development. In connection with this we shall attempt to trace development of some of these through immature stages to maturity, making little attempt to explain or interpret causes thereof, leaving such explanations and elaborations of the subject to others, who, more familiar with recent literature and results of research, may the more ably do so in discussion of this paper which it is hoped may follow.

In presenting this, the following limitations are to be held in mind.

1st. The western states include a number of soil regions varying widely and radically in topography, altitude, climate, vegetative cover, soil forming materials, and in processes of soil accumulation and soil formation. Such conditions are frequently exhibited in a single unit or soil survey area in which closely associated soils differ more radically than in eastern and middle western areas separated by several states. We may call your attention to the fact that the western states include regions ranging in rainfall from that so scanty and uncertain that periods of many months, in some cases of a year or more may elapse without measurable precipitation, to that in excess of 100 inches; of arable soils occurring between 300 feet below sea level to in excess of 7000 feet above; and of desert soils supporting but a scanty vegetation to great areas of the most dense and heavy timber cover within the United States. With this passing mention of the humid, forested soils of the west which have developed under conditions similar to those with which many of you are familiar, and which probably simulate some of the soils of the eastern and northeastern states, we will confine discussion in this paper to a few widely separated physiographic and climatic regions or provinces of limited rainfall, characterized by particular types of soil development which may be novel or new to some of the members of this Association.

2nd. While fundamental differences in soil profiles correlated with age of material and progressive development of soils through weathering in place, have been recognized in soil surveys in the western states for the past 25 years, such have been inadequately and