GRASS AND TIMBER SOILS DISTRIBUTION IN THE
BIG HORN MOUNTAINS

T. J. DUNNEWALD

The Big Horn Mountains cover about 21 townships of area in the west end of Sheridan County, Wyoming. These mountains rise abruptly from an elevation of 5,000 to 6,000 feet and extend to elevations of 9,000 to 10,000 feet. The Big Horn range has a northwest-southeast trend and the top of the range is an undulating series of hills and valleys and occasional rocky canyons and ridges.

On the east side of the range, pine timber covers the mountains practically down to the alluvial fans which issue from the front range and slope downward between the stream valleys to the east and southeast. On the west side timber growth commences at about 8,000 feet elevation and at 5,500 feet on the east side.

On top of the range, the pine timber covers the ridges, knolls, and areas of rocky shallow soil to the extent of about two-thirds of the total area. Undulating slopes and meadows to the extent of approximately one-third of the total area are covered largely with grass vegetation, with a small percentage of sage, and with low brush vegetation.

There appears to be no transition zone of bush or small trees between the timbered and grass areas. The line of demarkation is very sharp. General observation reveals that the areas occupied by timber are usually more stony with a shallow soil cover. The soil in the timbered areas is yellowish or grayish brown. On the grass areas the soil is generally much deeper and darker in color. The prevailing soil color in the grass lands is dark brown to black.

1 Contribution from the Department of Agronomy, Wyoming Agricultural Experiment Station, Laramie, Wyoming. Received for publication December 26, 1929.
2 Assistant in Soil Investigations.