

**Dark Brown Soil Zones.**—This Zone has somewhat better moisture conditions than the Brown Zone and the native vegetative cover is also somewhat heavier. It occurs in a belt surrounding the Brown Zone and covers approximately 30,000,000 acres. The typical surface soils are dark brown or chestnut in colour and contain somewhat more organic matter and nitrogen than the brown soils. The average thickness of the surface soils is also greater and the lime layer usually occurs at a depth of 10 to 18 inches. Solonetzic soils are quite common in many parts of this Zone and saline soils are found in many depressions.

The heavier soils of this Zone rate among the best wheat soils of Canada, while a considerable proportion of the rougher and higher land is utilized for grazing. The type of farming in this Zone is in general similar to that followed in the Brown Zone, although more favourable climatic conditions permit a somewhat more diversified agriculture.

**Black Soil Zone.**—The climate of the Black Soil Zone is sub-humid and the native vegetation consists of tall grasses interspersed with clumps of shrubs and trees. This Zone surrounds the Dark Brown Zone and covers approximately 42,500,000 acres. The typical surface soils, which may vary from 4 inches to 2 feet in depth, are very dark brown to black in colour and rich in organic matter and nitrogen. The lime layer generally occurs at a depth of 15 to 36 inches. Solonetzic and saline soils occur locally in this Soil Zone but they are not as common as in the Dark Brown and Brown Zones. In many of the local depressions, which are or were covered with trees, the soils have a grey surface soil. These soils are generally in poor physical condition and are less fertile than the better-drained dark soils. They are generally referred to as "depression" or "slough" podzols.

The typical black soils are very fertile. In addition to their greater fertility the more favourable climatic conditions in this Zone permit a more diversified type of agriculture than on the soils of the two other grassland zones.

**Degraded Black Soil Zone.**—The Degraded Black Soil Zone forms a transition belt between the Black and the Grey-Wooded Soil Zones. The native vegetation is mainly forest with some small local areas of tall grasses. The soils of this Zone vary locally from the typical black to the grey-wooded soils. However, most of the surface soils are "grey-black" in colour, i.e., intermediate between the two extreme types. Depression podzols or peat occur in the poorly drained depressional areas. Solonetzic soils may also be found locally.

The typical grey-black or degraded black soils, although quite productive, are generally somewhat lower in natural fertility than the soils of the Black Zone. The soils and the climatic conditions in this Zone are well suited to diversified farming.

**Grey-Wooded Soil Zone.**—The Grey-Wooded Soil Zone is the most extensive of all the soil zones south of the Shield. It lies in a cool semi-humid to semi-arid climatic region, with a total average annual precipitation varying from 22 to 12 inches. The native forest vegetation consists largely of poplar, willow, spruce and pine.

The dominant soils of this Zone have a light grey surface layer below a thin dark leaf mould. The brown or brownish grey subsurface soil is generally considerably heavier than the grey surface soil and the layer of lime accumulation usually occurs at a depth of 2 to 4 feet. In addition to the above soils degraded