

*Chernozemic soils* are primarily associated with grassland vegetation. Brown Chernozemic soils occur in the southeast part of the province and are characterized by the presence of a brown surface layer approximately 10 to 12 cm thick that generally contains 3 to 4 percent organic matter. Available moisture is the limiting factor to crop growth with most of the area in native range. With increasing available moisture, there is a transition to Dark Brown Chernozemic soils. These soils are characterized by the presence of a dark brown soil surface layer that is 12 to 15 cm thick that generally contains 4 to 6 percent organic matter. Moisture continues to be a limiting factor to crop production; however, the majority of the area is cultivated. Black Chernozemic soils are associated with grassland areas with the most available moisture and cooler temperatures. These soils are characterized by the presence of a black surface horizon that is 12 to 20 cm thick with organic matter generally in the range of 6 to 10 percent. These are highly productive soils that are used to grow a wide variety of agricultural crops. Dark Gray Chernozemic soils are associated with the transition between grassland and forest vegetation. These soils are similar to Black Chernozems with respect to surface layer thickness and organic matter content; however, the average frost-free period is a more limiting factor for annual agricultural crops.