Some of the plains states have achieved a bad reputation for soil drifting through some of the articles prepared by inspired writers during the past summer. However, most of the soil in South Dakota is not drifting although there are large areas where soil drifting has already ruined farms or greatly impaired their productiveness and other areas are threatening to begin moving before long.

Sandy soils have always drifted when not covered by vegetation but sandy loams, loams, and in some cases silt loams or even clays are beginning to move.

The rapid decrease of organic matter in the soil, due to continued cultivation and the return of little or no organic matter to the soil favoring decoherence of the particles in the soil granules, has no doubt had much to do in producing soil conditions favorable for soil drifting.

The low assimilative coefficient of the soils of South Dakota, due to long cold winters when most microbiological processes are suspended, the dry seasons when there is not sufficient water to enable the bacteria of decomposition to function, and the very high surface temperatures during mid-day or mid-summer, all contribute in making the decomposition process slow, consequently even under natural conditions the accumulation of soil organic matter is slow. This makes it difficult to incorporate straw, stalks and stubble with the soil without impairing the water relations of the soil and increasing droughtiness. Scarcity of forage is not favorable to the use of green manure crops which would decompose more rapidly. Consequently all these factors combine to reduce the organic matter content of soils under cultivation over much of the Great Plains area. Twenty-nine per cent of the organic carbon has disappeared from the soil at Brookings, South Dakota in twenty-one years, and soil analyses from other localities yield similar results. It is a conservative that during the fifty years the soils have been under cultivation as much organic matter has disappeared as accumulated during the previous 5000 years.

This long-time depletion of organic matter together with the prolonged drought which destroyed or prevented the growth of a vegetative covering and made over-grazing a necessity, together with the fact that the moisture films on the soil particles have been so thin for many months, all have favored the movement of soil by the wind. Several violent wind storms, usually related to the wind shift line of passing areas of low pressure, as on November 12, 1933; March 16, 1934; May 9, 1934, and several other notable gales, started soil moving so that more moderate winds could continue the process.

These factors, together with the level topography of the terrain, have contributed to the serious soil condition in South Dakota.

The following slides which will be exhibited in rapid succession illustrate conditions which prevail over large areas, but which are not characteristic of the entire state by any means. It will be noted that most of these views are from areas where farms have been productive and are well improved. This soil ruin is not limited to lands naturally submarginal. Good farms have been and are increasingly being ruined.