Soil is Iowa's greatest natural resource. However, there are many different soils in Iowa, each possessing a unique characteristic.

The enclosed map does not show all of the soils in Iowa. Rather, it shows the geographic areas where major soil groups occur. These soil groups are called soil associations, and the map identifies the major soil types on which they are found.

There are six soil orders in Iowa: Entisols, Inceptisols, Orders, Mollisols, Ochra-Clayey, and Aridisol. Each soil order is divided into one or more suborders, and each suborder is divided into one or more great groups. These great groups are further divided into subgroups, and each subgroup is divided into a series. The series is the most specific classification unit, and it is the unit that is used to describe the soil in this book.

The map also shows the general location of soil associations and major soil groups in Iowa. The map is intended to be a general guide to the distribution of soil types in the state. It is not intended to be an exact representation of the soil distribution in Iowa.

The soil map of Iowa is an excellent tool for identifying and describing the soils in the state. It is also a useful tool for planning land use and managing natural resources. The map is available from the Iowa Department of Natural Resources.

**Fun Fact:** As the glacial ice stagnated, long ridges called moraines were formed. These moraines are closely associated geographically and occur in a characteristic pattern. More information about soil associations is available on the Iowa NRCS website.

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**Iowa Soils**

**Northwest Iowa Soils**

This region consists of nearly level to slightly sloping soils that formed in the silt. The silt soils have a high water table and are characterized by high water content.
Loess–wind and consisting of predominately silt-sized clastic deposits created by the wind, typically have large deposits of loess on them. These deposits form a general term for material generated or transported by the wind.

Loess Ridges and Sideslopes–wind and consisting of predominately silt-sized clastic deposits created by the wind, typically have large deposits of loess on them. These deposits form a general term for material generated or transported by the wind.

Loess with Bedrock Outcrops–wind and consisting of predominately silt-sized clastic deposits created by the wind, typically have large deposits of loess on them. These deposits form a general term for material generated or transported by the wind.

Loess, Shale, and Glacial Till–wind and consisting of predominately silt-sized clastic deposits created by the wind, typically have large deposits of loess on them. These deposits form a general term for material generated or transported by the wind.

Tazewell glacial till–the most recent glaciation period in Iowa; considered to be approximately 26 thousand to 40 thousand years before present.

Southern part of the Iowan Erosion Surface, and geologic past and was buried and preserved.

Colluvial/Colluvium–the material transported by gravity, soil creep, or local wash. It is generally unconsolidated and non-cohesive and is characteristic of colluviation processes. Colluvial deposits are generally underlain by a horizon of soil and either represent a remnant of former soil formation or more typically are development products of surficially modified, shallow subsurface horizons.

Glacial till–the material transported by gravity, soil creep, or local wash. It is generally unconsolidated and non-cohesive and is characteristic of colluviation processes. Colluvial deposits are generally underlain by a horizon of soil and either represent a remnant of former soil formation or more typically are development products of surficially modified, shallow subsurface horizons.

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Glossary of Terms

Iowa Soil Regions

Legend

1. Loess over glacial till - low rainfall
2. Northwest Iowa Loess
3. Tazewell Glacial Till
4. Loess and Wisconsin Glacial Till
5. Clayey Lake Deposits
6. Iowa Erosion Surface
7. Shallow to Bedrock
8. Loess with Bedrock Outcrops
9. Shallow Loess over Glacial Till
10. Loess Ridges and Sideslopes
11. Loess with exposures of Glacial Till
12. Very Deep Loess
13. Maysur/River Bluffs
14. Maysur/River Alluvium
15. Loess Ridges/Glacial Till - SW Iowa
16. Loess, Shale, and Glacial Till
17. Loess Ridges/Glacial Till - SE Iowa
18. Eolian Sand
19. Loess - Timbred
20. Alluvium
21. Loess Ridges/Glacial Till Sideslopes
22. Loess Ridges/Cay Parksted
23. Water

0 12.5 25 50 75

North Dakota

South Dakota

Minnesota

Wisconsin

Nebraska

Missouri

Iowa

United States Department of Agriculture
Natural Resources Conservation Service