



# Soil Characterization

For characterization of soil to a depth of 90 cm at your site  
[www.project-acorn.net/data-entry](http://www.project-acorn.net/data-entry)

**When to use:** Before establishing raised planters at waystations, and annually for prairies to monitor structure, root penetration, and incorporation of humus into soil through natural cycling. Use 10cm Characterization Datasheet after intalation of raised plantings.

Name of School:

Month (mm):  Day (dd):  Year (yyyy):

Name of Observer:

Local Time:  :  Universal Time:  :

Method of sample:  Pit  Auger  Other

Complete characterization data for as many horizons are present up to a depth of 90 cm.

## Horizon 1:

**Top Depth:**  **Bottom Depth:**  **Moisture:**  Wet  Moist  Dry

**Structure:**  Granular  Blocky  Platy  Prismatic  Columnar  Single-Grained  Massive

**Main Color Code\*:**  **Second Color Code\*:**

\*Use code from GLOBE soil color book

**Consistence:**  Loose  Friable  Firm  Extremely Firm

**Texture:**  Sand  Loamy Sand  Sandy Clay Loam  Sandy Loam  
 Sandy Clay  Loam  Silty Clay  Silty Clay Loam  
 Silty Loam  Clay Loam  Clay

**Rocks:**  None  Few  Many **Roots:**  None  Few  Many

**Carbonates:**  None  Few  Many

## Horizon 2:

**Top Depth:**  **Bottom Depth:**  **Moisture:**  Wet  Moist  Dry

**Structure:**  Granular  Blocky  Platy  Prismatic  Columnar  Single-Grained  Massive

**Main Color Code\*:**  **Second Color Code\*:**

\*Use code from GLOBE soil color book

**Consistence:**  Loose  Friable  Firm  Extremely Firm

**Texture:**  Sand  Loamy Sand  Sandy Clay Loam  Sandy Loam  
 Sandy Clay  Loam  Silty Clay  Silty Clay Loam  
 Silty Loam  Clay Loam  Clay

**Rocks:**  None  Few  Many **Roots:**  None  Few  Many

**Carbonates:**  None  Few  Many

**Horizon 3:**

**Top Depth:**  **Bottom Depth:**  **Moisture:** Wet Moist Dry

**Structure:** Granular Blocky Platy Prismatic Columnar Single-Grained Massive

**Main Color Code\*:**  **Second Color Code\*:**

\*Use code from GLOBE soil color book

Consistence: Loose Friable Firm Extremely Firm

**Texture:** Sand Loamy Sand Sandy Clay Loam Sandy Loam  
Sandy Clay Loam Silty Clay Silty Clay Loam  
Silty Loam Clay Loam Clay

**Rocks:** None Few Many **Roots:** None Few Many

**Carbonates:** None Few Many

**Horizon 4:**

**Top Depth:**  **Bottom Depth:**  **Moisture:** Wet Moist Dry

**Structure:** Granular Blocky Platy Prismatic Columnar Single-Grained Massive

**Main Color Code\*:**  **Second Color Code\*:**

\*Use code from GLOBE soil color book

Consistence: Loose Friable Firm Extremely Firm

**Texture:** Sand Loamy Sand Sandy Clay Loam Sandy Loam  
Sandy Clay Loam Silty Clay Silty Clay Loam  
Silty Loam Clay Loam Clay

**Rocks:** None Few Many **Roots:** None Few Many

**Carbonates:** None Few Many

**Horizon 5:**

**Top Depth:**  **Bottom Depth:**  **Moisture:** Wet Moist Dry

**Structure:** Granular Blocky Platy Prismatic Columnar Single-Grained Massive

**Main Color Code\*:**  **Second Color Code\*:**

\*Use code from GLOBE soil color book

Consistence: Loose Friable Firm Extremely Firm

**Texture:** Sand Loamy Sand Sandy Clay Loam Sandy Loam  
Sandy Clay Loam Silty Clay Silty Clay Loam  
Silty Loam Clay Loam Clay

**Rocks:** None Few Many **Roots:** None Few Many

**Carbonates:** None Few Many

**Horizon 6:**

**Top Depth:**  **Bottom Depth:**  **Moisture:** Wet Moist Dry  
**Structure:** Granular Blocky Platy Prismatic Columnar Single-Grained Massive  
**Main Color Code\*:**  **Second Color Code\*:**   
\*Use code from GLOBE soil color book  
Consistence: Loose Friable Firm Extremely Firm  
**Texture:** Sand Loamy Sand Sandy Clay Loam Sandy Loam  
Sandy Clay Loam Silty Clay Silty Clay Loam  
Silty Loam Clay Loam Clay  
**Rocks:** None Few Many **Roots:** None Few Many  
**Carbonates:** None Few Many

**Horizon 7:**

**Top Depth:**  **Bottom Depth:**  **Moisture:** Wet Moist Dry  
**Structure:** Granular Blocky Platy Prismatic Columnar Single-Grained Massive  
**Main Color Code\*:**  **Second Color Code\*:**   
\*Use code from GLOBE soil color book  
Consistence: Loose Friable Firm Extremely Firm  
**Texture:** Sand Loamy Sand Sandy Clay Loam Sandy Loam  
Sandy Clay Loam Silty Clay Silty Clay Loam  
Silty Loam Clay Loam Clay  
**Rocks:** None Few Many **Roots:** None Few Many  
**Carbonates:** None Few Many

**Horizon 8:**

**Top Depth:**  **Bottom Depth:**  **Moisture:** Wet Moist Dry  
**Structure:** Granular Blocky Platy Prismatic Columnar Single-Grained Massive  
**Main Color Code\*:**  **Second Color Code\*:**   
\*Use code from GLOBE soil color book  
Consistence: Loose Friable Firm Extremely Firm  
**Texture:** Sand Loamy Sand Sandy Clay Loam Sandy Loam  
Sandy Clay Loam Silty Clay Silty Clay Loam  
Silty Loam Clay Loam Clay  
**Rocks:** None Few Many **Roots:** None Few Many  
**Carbonates:** None Few Many

**Horizon 9:**

**Top Depth:**  **Bottom Depth:**  **Moisture:** Wet Moist Dry

**Structure:** Granular Blocky Platy Prismatic Columnar Single-Grained Massive

**Main Color Code\*:**  **Second Color Code\*:**

\*Use code from GLOBE soil color book

**Consistence:** Loose Friable Firm Extremely Firm

**Texture:** Sand Loamy Sand Sandy Clay Loam Sandy Loam  
Sandy Clay Loam Silty Clay Silty Clay Loam  
Silty Loam Clay Loam Clay

**Rocks:** None Few Many **Roots:** None Few Many

**Carbonates:** None Few Many

**Horizon 10:**

**Top Depth:**  **Bottom Depth:**  **Moisture:** Wet Moist Dry

**Structure:** Granular Blocky Platy Prismatic Columnar Single-Grained Massive

**Main Color Code\*:**  **Second Color Code\*:**

\*Use code from GLOBE soil color book

**Consistence:** Loose Friable Firm Extremely Firm

**Texture:** Sand Loamy Sand Sandy Clay Loam Sandy Loam  
Sandy Clay Loam Silty Clay Silty Clay Loam  
Silty Loam Clay Loam Clay

**Rocks:** None Few Many **Roots:** None Few Many

**Carbonates:** None Few Many

**Horizon 11:**

**Top Depth:**  **Bottom Depth:**  **Moisture:** Wet Moist Dry

**Structure:** Granular Blocky Platy Prismatic Columnar Single-Grained Massive

**Main Color Code\*:**  **Second Color Code\*:**

\*Use code from GLOBE soil color book

**Consistence:** Loose Friable Firm Extremely Firm

**Texture:** Sand Loamy Sand Sandy Clay Loam Sandy Loam  
Sandy Clay Loam Silty Clay Silty Clay Loam  
Silty Loam Clay Loam Clay

**Rocks:** None Few Many **Roots:** None Few Many

**Carbonates:** None Few Many

**Horizon 12:**

**Top Depth:**  **Bottom Depth:**  **Moisture:** Wet Moist Dry

**Structure:** Granular Blocky Platy Prismatic Columnar Single-Grained Massive

**Main Color Code\*:**  **Second Color Code\*:**

\*Use code from GLOBE soil color book

**Consistence:** Loose Friable Firm Extremely Firm

**Texture:** Sand Loamy Sand Sandy Clay Loam Sandy Loam  
Sandy Clay Loam Silty Clay Silty Clay Loam  
Silty Loam Clay Loam Clay

**Rocks:** None Few Many **Roots:** None Few Many

**Carbonates:** None Few Many

**Horizon 13:**

**Top Depth:**  **Bottom Depth:**  **Moisture:** Wet Moist Dry

**Structure:** Granular Blocky Platy Prismatic Columnar Single-Grained Massive

**Main Color Code\*:**  **Second Color Code\*:**

\*Use code from GLOBE soil color book

**Consistence:** Loose Friable Firm Extremely Firm

**Texture:** Sand Loamy Sand Sandy Clay Loam Sandy Loam  
Sandy Clay Loam Silty Clay Silty Clay Loam  
Silty Loam Clay Loam Clay

**Rocks:** None Few Many **Roots:** None Few Many

**Carbonates:** None Few Many

**Horizon 14:**

**Top Depth:**  **Bottom Depth:**  **Moisture:** Wet Moist Dry

**Structure:** Granular Blocky Platy Prismatic Columnar Single-Grained Massive

**Main Color Code\*:**  **Second Color Code\*:**

\*Use code from GLOBE soil color book

**Consistence:** Loose Friable Firm Extremely Firm

**Texture:** Sand Loamy Sand Sandy Clay Loam Sandy Loam  
Sandy Clay Loam Silty Clay Silty Clay Loam  
Silty Loam Clay Loam Clay

**Rocks:** None Few Many **Roots:** None Few Many

**Carbonates:** None Few Many