





- Soil water level (both deficit and excess) is an important factor in determining crop productivity potential.
- Various soils have differing levels of available water and permeability, which is measured by available water-holding capacity and drainage estimates.
- Hybrids and varieties differ in their tolerance to high or low water availability and drainage.
- **Pioneer EnClass® Soils**, a proprietary DuPont Pioneer system, allows sales professionals and growers to place seed products suitable to a field's soil/water characteristics.
- Pioneer EnClass Soils is one of the tools available to DuPont Pioneer sales professionals and customers through **FIT® Studio** to develop management zones and optimize product placement.

Available Pioneer FIT Services Management Zones Tools

Layer Name	Provides Info About...	Best Used For		
		General Soil Description	Product Placement	Variable Rate Seeding
Soil Name (MuName)	Name, Soil Texture and Slope	Yes		
EnClass Soils	Water Availability and Drainage		Yes	
NCCPI (Corn_Index)	Potential Productivity			Yes
Multi-Year Yield Analysis (MYA)	Historic Productivity			Yes

Pioneer EnClass Soils Descriptions

-  **Well Drained** – Soils with moderate to high water availability and sufficient internal drainage, such as **productive loams**. Won't burn up or drown out under typical conditions.
-  **Potentially Dry** – Soils with reduced water availability and/or excessive drainage. Typically drought prone. **Sands and sandy loams** are examples.
-  **Potentially Wet** – Soils with high water availability, poor drainage. Potential for excess water during growing season. Often low lying with little slope. **Silty clay loams and clay loams** may be found in these sometimes-ponded areas.
-  **Wet/Dry** – Soils that can be wet early in the season due to poor internal drainage but have reduced water holding capacity and can dry out later. Some have reduced soil depth and low percolation rates. **Droughty clays and clay-pan shallow soils** are examples.



Step 1.

Obtain NRCS soils for the target field.



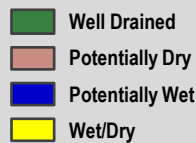
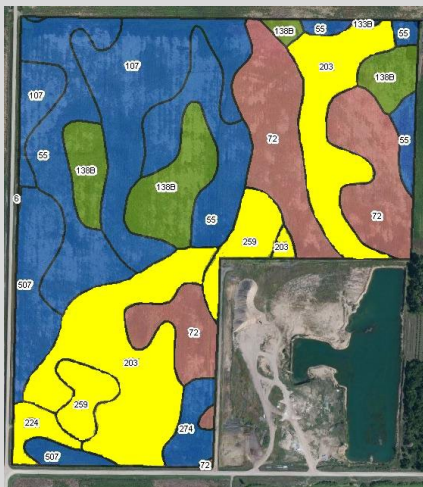
Example Field #1



Example Field #2

Step 2.

Apply criteria to group soil types into Pioneer EnClass® Soils.



Step 3.

Place seed products on the field that complement Pioneer EnClass Soils.

Soils	
Early Planting / Cold Soils	Highly Suitable
Drought Prone Soils	Suitable
Poorly Drained Soils	Suitable

Well Drained – Products rated Suitable or Highly Suitable in any Soils category

Potentially Dry – Products rated Highly Suitable for Drought Prone Soils

Potentially Wet – Products rated Highly Suitable for Poorly Drained Soils and/or Early Planting/Cold Soils

Wet/Dry – Products rated Highly Suitable for Drought Prone and/or Poorly Drained Soils

Items to Consider:

- In most fields, the transition from one soil type to another is often irregular, and establishing an absolute boundary between two different soil types may be difficult.
- Data used to develop Pioneer EnClass Soils were created through research by the NRCS and are subject to change.
- These data may be considered useful in developing broad understandings at a field level.



PIONEER
A DUPONT BUSINESS

Pioneer Agronomy Sciences

®, SM, TM Trademarks and service marks of Pioneer Hi-Bred. © 2012, PHIL