



A Resource for Farm and Land Use Mapping: UC Davis Soil Web

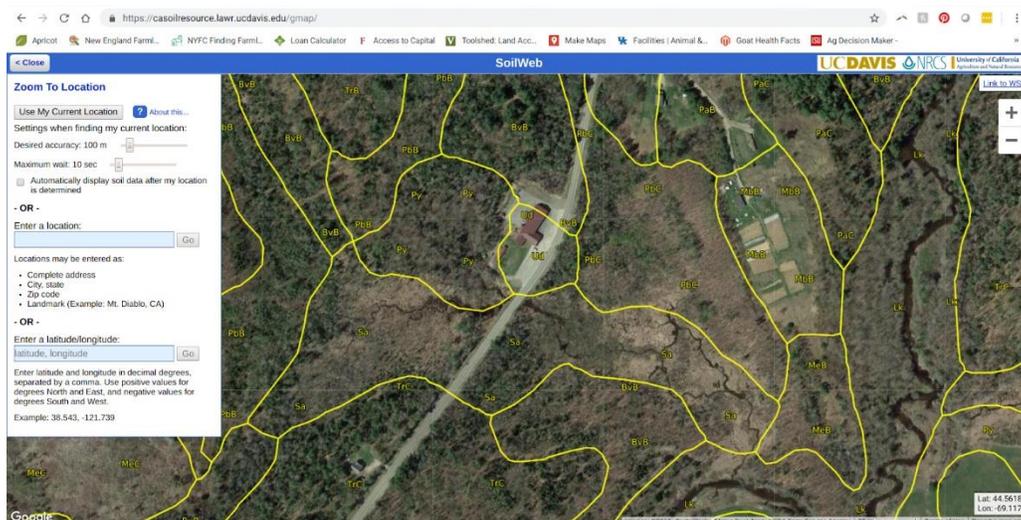
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One of the first questions a farmer might ask about a property is “*What are the soil types?*” While soil tests can give a farmer a sense of the soil’s current fertility, pH, nutrient levels and organic matter, the soil types or “soil series” as categorized by the USDA are based on the formation of soil over geologic time. The soil series’ characteristics will influence aspects of tillage, drainage, stone and ledge composition, native fertility and yield potential.

Including a soils map can improve the usefulness of your property disclosures and help the prospective buyer determine if the property is suitable for their farm plan.

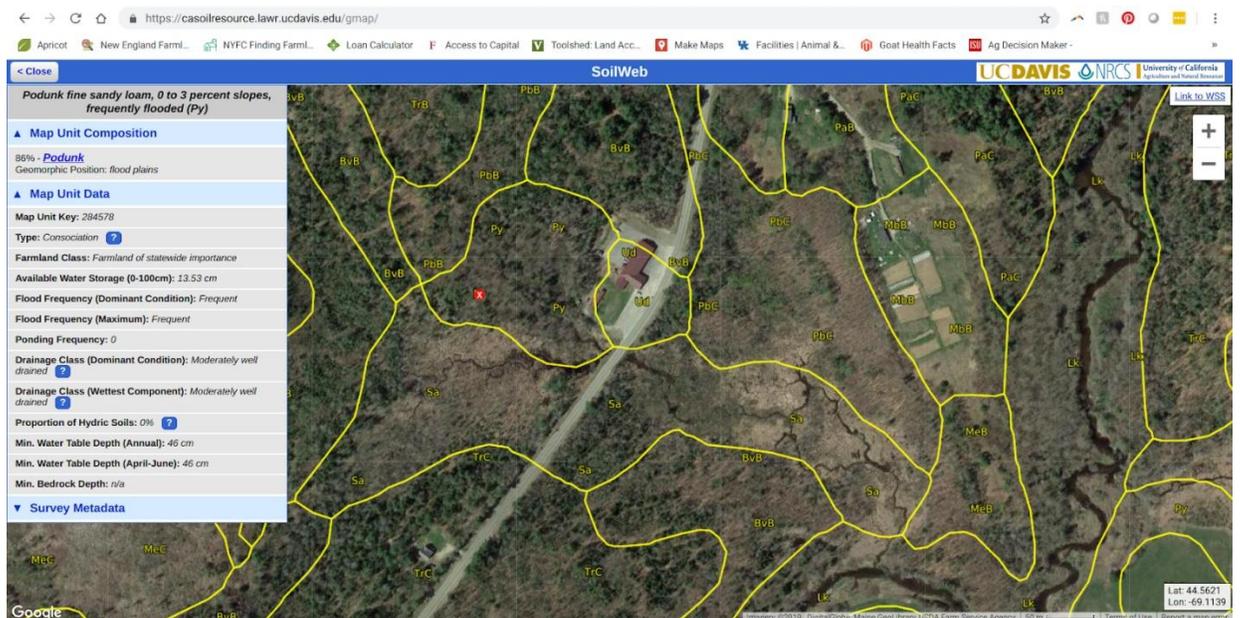
To determine the soil type(s) on a property there are several tools including obtaining copies of the soils map from the current property owner, visiting the county office of the Natural Resources Conservation Service (NRCS) or by using the USDA Web Soil Survey tool websoilsurvey.nrcs.usda.gov (A tutorial on using the Websoil Survey is here: http://smadc.com/farmRESOR/tut_soilsinfo.htm)

An additional tool is UC Davis’ Soil Web. UC Davis Soil Web is faster and easier to use than the USDA Web Soil Survey, and can be used on a variety of platforms (desktop, mobile, tablet). The UC Davis Soil web was developed by the [California Soil Resource Lab](#) at UC Davis and UC-ANR in collaboration with the [USDA Natural Resources Conservation Service](#).



Getting Started

- A. To visit the UC Davis Soil Web, go to: <https://casoilresource.lawr.ucdavis.edu/gmap/>
- B. Go to *Menu->Zoom To Location* A dialog box will open on the left side of the screen- this is where you can review both your display options and choose how you'd like to find your subject property.
- C. You have the option to "Use Current Location" OR mid-way down there will be a blue box in which to type the subject property address.
- D. Type in the property location (street address) then hit "GO"
- E. A location marker will appear. Click on the map to identify "map units", which are delineated by the yellow lines.
- F. Click on an area label, for example "Py" on the map shown above.



- G. This will bring up the **Map Unit Composition**
 1. First is a brief description of the soil type "Py" or "**Podunk**" (grey box), then % of this soil type in the area selected.
 2. Under Map Unit Data are several descriptors. In this example:
 - a. Farmland Class- *Farmland of Statewide Importance*
 - b. Flood Frequency - *Frequent Drainage*
 - c. Class- *Moderately well drained*
 - d. % of Hydric Soils - 0%

These basic characteristics are very helpful to farmers. It can help a potential buyer easily assess the suitability of the available acreage for their desired farming operation.

- H. Click on the soil type name- **Podunk**. This brings up an expanded description box.

- I. Click on **Land Classification** - the land capability class is a system of grouping soils on the basis of their capability to produce common cultivated crops and pasture plants without deteriorating over a long period of time. It is subdivided into capability class and capability subclass nationally.
 1. Prime Farmland is generally in classes 1-2, and represents tillable land suitable for most any crop.
 - a. Class 1--These soils have few limitations that restrict their use
 - b. Class 2-- have some limitations that reduce the choice of plants or require moderate conservation practices.
 - c. Class 3-- have significant limitations that reduce the choice of plants or require special conservation practices, or both. But, these are still often tillable and suitable for row crops.
 - d. Class 4 - 7 soils have progressively more severe limitations and may only be able to support pasture or forest.
 2. Capability Sub-Class are denoted by a letter (for example sub-class "e" for erosion & run-off, "w" for excess water, "s" for limitations in the root zone- primarily stony or rocky soils, "c" for climatic where temp or lack of moisture is only limitation) For a full list and further descriptions see - [Land Capability Classifications - pdf](#)

These are just a few of the useful features of the UC Davis Soil web tool. By navigating through the site and clicking on the links (in blue) and the "?" features you can discover even more useful information to enhance property listings.

Printing Maps

You can easily print the soils map of a subject property using a variety of methods.

- A. By using your internet browser
 - a. select File > Print
 - b. Choose the best scale and page layout.
- B. By using a screen capture
 - a. On a PC there several options
 - i. Press the PrtScn button to copy to the clipboard.
 - ii. Press the Windows+PrtScn buttons on your keyboard to save tto a file.
 - b. On a Mac - Press Shift-Command-4.
 - i. Drag to select the area of the screen to capture. To move the entire selection, press and hold Space bar while dragging.
 - ii. After you release your mouse or trackpad button, find the screenshot as a .png file on your desktop.