

## Point Module IV - Soils Information

For the 1992 NRI, extensive work was done to match the State Soil Survey database (SSSD) with each point in NRI. The process was designed to verify the accuracy and completeness of the NRI soils data base. The work done provides accurate soils data that will be used for the 1997 NRI.

For future NRIs it will be necessary to form a linkage to the National Soil Information System (NASIS). The transformation from SSSD to the NASIS database is not yet complete. When it is, NRI will work with the National Soil Survey Center, Soil Scientists from the MRLA Offices (MOs), and ICCS Leaders to form a linkage to the NASIS database. This will allow NRI to update all soils information for future inventories.

### ***Definition***

*Soils information* is a general term that describes the linkage needed to access the national soils data base and the elements in the data base that are used in NRI analysis.

### ***Importance***

The NRI is unique because it is based upon the identification of soils and the utilization of the properties and characteristics of the identified soils. This provides the ability to correlate soils information with land use, land use changes, erosion, and many other data elements, and to use the NRI data base as a framework for modeling activities.

### ***Guidelines and Clarifications***

Because the 1992 NRI soils data base will be used for the 1997 NRI, there are only two types of situations (conditions) where the soils information will require an update:

- Where the ownership codes change from 5 - Federal-not census water in 1992 to ownership codes other than Federal-not census water in 1997.
- Where the land cover/use changes **from** barren land, urban and built-up, rural transportation, and waterbody, or perennial stream **to** cropland, hayland, pastureland, rangeland, forest land, farmsteads and ranch headquarters, CRP land, or other land in farms.

The soil scientist locally or at the MLRA Office should update soils information. A soil scientist on the NRCS Resource Inventory Division staff at Ames will help in identifying proper matches (515-294-5946).

The following noneditable soils information will be displayed on the PDA for every point; this information was verified in 1993 during construction of the 1992 NRI data base.

#### 4.1 - Soils Information I

- Soil name
- Surface texture
- Surface modifier
- Slope class (low %)
- Slope class (high %)

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4.1. Soils Information I

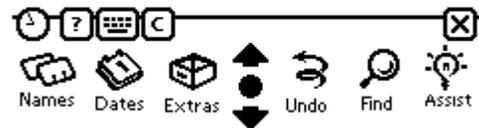
Note

Soil name	<b>COMFREY</b>
Surface Texture	<b>CL</b>
Surface Modifier	<b>NON</b>
Slope Class (low %)	<b>0</b>
Slope Class (high %)	<b>2</b>

If one of the two conditions listed earlier in the Guidelines and Clarification section occurs, then data entry will be required for PDA screens 4.2 and 4.3.

### ***Documentation Required in PSU Folder***

No documentation required.



### ***Categories and Codes***

#### 4.2 - Soils Information II

- Map unit symbol
- SCS-Soil 5 record #
- Soil Name
- Surface Texture
- Surface Modifier
- Slope Class (Low %)
- Slope Class (High %)
- Flooding Class
- Other Phase Determining Criteria

#### 4.3 - Soils Information III

- USLE K factor
- T factor
- WEQ I factor
- Irrigated Capability Class and Subclass
- Non Irrigated Capability Class and Subclass

## ***PDA Instructions***

Soils information from the 1992 NRI soils data base will be displayed on screen 4.1 for all points. These data will not be editable. If one of the two conditions is met, then two additional screens will appear requiring updating of information. Each element displayed will need either editing or data entry.

Enter the information into the PDA for sections 4.2 and 4.3.

Use the key pad for Map Unit Symbol, SCS-Soil 5 record #, Soil Name, both slope classes, Other Phase Determining Criteria, USLE K, T, and WEQ I.

Use the choice lists for Surface Texture, Surface Modifier, Flooding Class, Irrigated Capability Class, and Non Irrigated Capability Class. There must be an entry for each element. Enter **0**, **non**, or **NA** where appropriate.

Upon completion of each screen, tap the completion check box to verify the data. Resolve any reported edit checks.

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4.3. Soils Information III

Note

USLE K factor .....

USLE T factor .....

WEQ I factor .....

Irrigated

82	87	92	97

Non-irrigated

82	87	92	97

Names Dates Extras Undo Find Assist

## ***Point Module II Glossary***

(The following definitions were extracted from the 1997 National Resources Inventory glossary.)

***I factor (Wind erodibility index).*** Used in wind erosion equation (WEQ) calculations, based on the wind erodibility group (WEG) of the soil. [NAM]

***Irrigated Capability Class and Subclass.*** A rating of the soil for irrigated agricultural use. The number indicates progressively greater limitations and narrower choices for use. The letter indicates dominant kind of limitation for agricultural uses. [SSURGO] For the NRI, the rating would be assigned to land determined to be irrigated. [NRI-97]

***Mapunit name.*** Correlated name of the map unit (recommended name or field name for surveys in progress). [SSURGO]

***Non Irrigated Capability Class and Subclass.*** A rating of the soil for nonirrigated agricultural use. The number indicates progressively greater limitations and narrower choices for use. The letter indicates dominant kind of limitation for agricultural uses. [SSURGO] For the NRI, the rating would be assigned to land determined to be nonirrigated. [NRI-97]

***Slope Class (high %).*** The maximum value for the range of slope of a soil component within a map unit. [SSURGO]

***Slope Class (low %).*** The minimum value for the range of slope of a soil component within a map unit. [SSURGO]

***Soil erodibility (K factor).*** A measure of the susceptibility of a soil to particle detachment and transport by rainfall. Recorded for each soil series surface textural phase in the SCS-SOI-5. Used in USLE calculations. [NSH]

*Soil Name.* See Mapunit name.

*Surface Modifier.* See Surface Soil Texture.

*Surface Soil Texture.* Code for the USDA texture for the surface layer or horizon. Example: Loam (L); Sandy loam (SL). Also includes terms used to modify texture and terms used in lieu of texture. [SSURGO]

*T factor.* The soil loss tolerance which can be used with the USLE. It is the maximum rate of annual soil erosion that will permit crop productivity to be sustained economically and indefinitely. [SSM]

*USLE K factor.* See Soil erodibility (K factor).

*WEQ I factor.* See I factor.