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● CHARD

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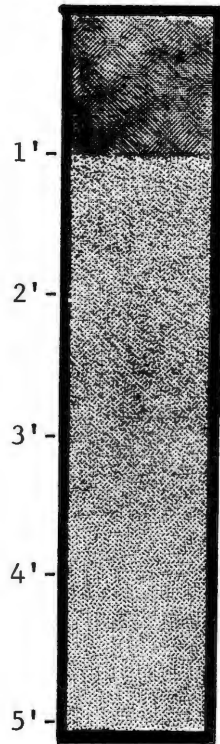
SOIL GUIDE SHEET

These are well-drained, medium textured soils that formed under bunchgrass, in glacio-fluvial material derived from loess and basalt. They are found at elevations of 1200 to 1600 feet. They occupy nearly level to strongly sloping dissected terraces in Adams, Columbia, and Whitman Counties.

Representative Description:

CHARD silt loam

<u>Water Holding Capacity</u> In/in	<u>Permeability</u> In/hr	<u>Shrink-Swell Potential</u>	<u>Engineering Classification</u> Unified AASHTO	
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Surface layer: 0-12", very dark brown to a dark grayish-brown silt loam; granular, friable; pH 7.4-7.8

.22	0.63-2.0	low	ML	A-4
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Subsoil: 12-44", dark brown, very fine sandy loam, prismatic to massive, friable; calcareous; pH 7.9-8.4

.17	0.63-2.0	low	ML or SM	A-4
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Substratum: 44-60", sandy loam, strongly alkaline, calcareous.

.15	6.30-2.0	low	SP or SM	A-3
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Caution: All Chard soils are not exactly like the one shown above. Differences in characteristics will affect suitability and limitations for uses. See Capability Classification Table.

ABOUT THE SOIL GUIDE SHEETS: Soil Guide Sheets are written primarily to indicate suitability for irrigation farming. In addition, some engineering properties are shown. These will serve as a preliminary guide but on-site investigation will be needed before making final decisions on non-agricultural uses. Certain terms and soil ratings may not be self explanatory. Refer to "Guide to the Use of Soil Guide Sheets".

Capability Classification

Chard soils	0-2	(percent slope)			
		2-5	5-15	15-25	25-40
1. Silt loam ^{1/}	I	IIe	IIIe	IVe	VIe
2. Silt loam, moderately shallow ^{2/}	IIIs	IIe	IIIe	IVe	VIe
3. Fine sandy loam, severely eroded ^{1/}	I	IIe	IIIe	IIIe	VIe
4. Loam ^{1/}	I	IIe	IIIe	IVe	VIe
5. Very fine sandy loam, deep ^{1/}	I	IIe	IIIe	IVe	VIe
6. Silt loam, deep ^{1/}	I	IIe	IIIe	IIIe	VIe

Determine the depth of your soil. Depth affects use and management. Total water holding capacity is less on shallower soil.

Suitability as a source of:

- Topsoil - Good
- Sand - Poor
- Gravel - Not suitable
- Road Fill - Fair

Soil features affecting engineering uses:

- Highway location - High frost action potential upper 36", undulating topography, susceptible to wind erosion if cuts exceed 24".
- Dikes, Levees, Embankments - Upper 24" susceptible to piping and cracking, close control essential for compaction.
- Reservoir - Very rapid permeability if cuts exceed 40".
- Septic disposal systems - Moderate permeability.

Suitability for irrigation farming:

- Water holding capacity - High
- Infiltration - Slow
- Permeability - Moderate
- Drainage - Well drained
- Salinity and alkali hazard - Slight to moderate, strongly alkaline in substratum.
- Erosion hazard - Slight, but increases with slope.

General Evaluation: Chard soils will be productive under irrigation. Suitable for rill or sprinkler irrigation on nearly level areas; sprinkler only on steeper slopes. Leveling may expose subsoil low in fertility. Have your soil tested to determine fertilizer needs. Suitable for most field crops.

^{1/}Deep and very deep soils (40"+) with inhibiting layers in the profile.

^{2/}Soils 20-40" deep over hardpan, claypan, bedrock, etc.

This Soil Guide Sheet was prepared by A. I. Dow, Extension Soils Specialist, Washington State University in cooperation with Eward T. Harrison, Soil Scientist, Robert F. Mitchel, State Soil Scientist, Soil Conservation Service, USDA; and Mel A. Hagood, Extension Irrigation and Water Use Specialist, Washington State University.