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SOIL GUIDE SHEET

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These are poorly drained, deep, medium textured soils that were formed from alluvium deposited under ponded or stagnated drainage condition. They occupy nearly level bottomlands occurring sporadically along the Yakima and Columbia Rivers at elevations of 250 to 600 feet. These soils are associated with the Burbank soils and are found in Benton and Chelan Counties.

Representative Description:

PASCO silt loam

Water Holding Capacity In/in	Permeability In/hr	Shrink-Swell Potential	Engineering Classification Unified AASHO
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	<u>Surface layer:</u> 0-6", dark grayish-brown silt loam, granular, soft, friable, slightly calcareous; pH 8.2	.22	0.63-2.0	low	ML	A-4
	<u>Subsoil:</u> 6-20", dark grayish brown silt loam, massive, soft, friable, slightly calcareous; pH 8.4	.23	0.63-2.0	low	ML	A-4
	<u>Upper substratum:</u> 20-33", dark brown heavy silt loam, prismatic, slightly hard, friable, slightly calcareous; pH 8.0	.24	0.63-2.0	low	ML	A-4
	<u>Lower substratum:</u> 33-52", dark grayish brown very fine sandy loam, massive, soft, very friable, slightly calcareous; pH 7.8	.20	0.63-2.0	low	ML	A-4
	52-62", dark brown heavy silt loam and hard in lower profile	.25	0.63-2.0	low	ML	A-4

Caution: All Pasco 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 (percent slope)

- Pasco soils 0-2
1. Fine sandy loam^{1/}..... IIIw
 2. Silt loam^{1/}..... IIIw

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 - Not suitable
- Gravel - Not suitable
- Road Fill - Poor

Soil features affecting engineering uses:

- Highway location - High water table requires grade elevation, high susceptibility to frost action, moderate shrink-swell potential, slow permeability.
- Dikes, Levees, Embankments - Excessive moisture, susceptible to piping, low stability, low shearing strength, pervious when compacted.
- Reservoir - High water table, moderate permeability
- Septic disposal systems - Moderate permeability, poor drainage

Suitability for irrigation farming:

- Water holding capacity - High
- Infiltration - Slow to moderate
- Permeability - Slow to moderate
- Drainage - Poor
- Salinity and alkali hazard - Moderate to severe; poorly drained, runoff is slow to ponded, slow permeability
- Erosion hazard - Slight

General Evaluation: Pasco soils are limited in productivity and in choice of crops because of poor drainage and high water table. Presently suitable for hay and pasture. If adequate drainage is provided they are productive. Most field crops grown in the area can be then grown. Soils should be tested to determine presence of salinity or alkali problem. Have your soil tested to determine fertilizer needs.

^{1/}Deep and very deep soils (40"+) with no inhibiting layers in the profile.

This Soil Guide Sheets was prepared by A. I. Dow, Extension Soils Specialist, Washington State University in cooperation with Jack J. Rasmussen, 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