These are moderately well drained, medium-textured, saline-alkali soils that developed in a mixture of loess and pumice alluvium. They are found at elevations of 800 to 1200 feet. They occupy low terraces or wide valley bottoms in Grant, Kittitas, Walla Walla and Yakima Counties.

Representative Description:

AHTANUM silt loam

Surface layer: 0-7", dark grayish brown silt loam; granular, very friable; calcareous; pH 7.9-8.4

Subsoil: 7-34", dark grayish brown silt loam; massive, prismatic, very friable; strongly calcareous; pH 8.5-9.0

Upper Substratum: 34-40", dark grayish brown silt loam; massive, hardpan; calcareous; pH 8.5-9.0

Lower Substratum: 40-72", dark brown silt loam; granular, friable; pH 7.9-8.4

Water Holding Capacity

Permeability

Shrink-Swell Potential

Engineering Classification

Unified AASHO

.In/in

In/hr

low

ML A-4

Caution: All Ahtanum 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

<table>
<thead>
<tr>
<th>Ahtanum soils</th>
<th>(percent slope)</th>
<th>0-2</th>
<th>2-5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Silt loam1/</td>
<td>IIs</td>
<td></td>
<td>IIs</td>
</tr>
<tr>
<td>2. Fine silt loam2/</td>
<td>IVs</td>
<td></td>
<td>IVs</td>
</tr>
<tr>
<td>3. Loam2/</td>
<td>IVw</td>
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<td>IVw</td>
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</tbody>
</table>

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 - Fair (if not too rocky), poor if saline
- Sand - Not suitable
- Gravel - Not suitable
- Road Fill - Poor to fair

Soil features affecting engineering uses:
- Highway location - Susceptibility to frost action is moderate to high, compaction is good to fair, close control is essential
- Dikes, Levees, Embankments - Compaction is good to fair
- Reservoir - Moderate permeability (above hardpan)
- Septic disposal systems - Very slow permeability in hardpan

Suitability for irrigation farming:
- Water holding capacity - High
- Infiltration - Slow to moderate
- Permeability - Moderate (above the hardpan), very slow in hardpan
- Drainage - Moderately well drained
- Salinity and alkali hazard - Very slow permeability through hardpan, strongly alkaline in places.
- Erosion hazard - Slight

General Evaluation: Ahtanum soils are productive where salts are removed and where the hardpan is less hard and thick. Adequate drainage must be provided. Soil should be tested to determine presence of salinity or alkali. Suitable for rill or sprinkler irrigation. Leveling may expose subsoils which are low in fertility. Have your soil tested to determine fertilizer needs. Suitable for most field crops.

1/Deep and very deep soils (40"+) with no inhibiting layers in the profile.
2/Moderately deep or moderately shallow soils (20-40") over hardpan, bedrock, or claypan.

This Soil Guide Sheet was prepared by A. I. Dow, Extension Soils Specialist, Washington State University in cooperation with Evard 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