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HEZEL

SOIL  
GUIDE SHEET

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WASHINGTON STATE UNIVERSITY

These are well-drained, deep, medium-textured soils. They formed under grass, sagebrush and rabbitbrush in wind-blown sand mantling lake-laid sediments. They occupy gently sloping to moderately steep terraces at elevations of 500 to 1000 feet. These soils are associated with the Quincy and Warden soils, and are found in Benton, Franklin, Grant, Walla Walla and Yakima Counties.

Representative Description:

HEZEL loamy fine sand

<u>Water Holding Capacity</u> In/in	<u>Permeability</u> In/hr	<u>Shrink-Swell Potential</u>	<u>Engineering Classification</u> Unified AASHO	
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1'-	<u>Surface layer:</u> 0-16", dark grayish-brown loamy fine sand; very friable; pH 7.4	.15	5.0-10.0	low	SM	A-2
2'-	<u>Subsoil:</u> 16-26", grayish brown silt loam; blocky, hard, friable; pH 8.4	.23	0.8-2.5	low	ML	A-4
3'-	<u>Substratum:</u> 26-64", dark grayish-brown silt loam; massive, slightly hard, friable; strongly calcareous, fragments of limestone; pH 8.4	.23	0.8-2.5	low	ML	A-4
4'-						
5'-						

Caution: All Hezel 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".

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Capability Classification

(percent slope)

	0-2	2-5	5-15	15-25	25-40
Hezel soils					
1. Loamy fine sand, and eroded <sup>2/</sup> .....	IVs	IVe	IVe	IVe	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 - Fair
- Sand - Not suitable
- Gravel - Not suitable
- Road Fill - Fair

Soil features affecting engineering uses:

- Highway location - Slight susceptibility to frost action, rapid permeability, low shrink-swell potential, susceptible to wind erosion
- Dikes, Levees, Embankments - Pervious when compacted, low shear strength, moderate stability
- Reservoir - Moderate permeability
- Septic disposal systems - Moderate permeability

Suitability for irrigation farming:

- Water holding capacity - Moderate to high
- Infiltration - Rapid
- Permeability - Rapid in the surface layer, moderate in the subsoil
- Drainage - Well drained
- Salinity and alkali hazard - Low
- Erosion hazard - Water erosion, slight, increases with slope; wind erosion, high.

General Evaluation: Hezel soils are productive under irrigation with normal, good management practices. Suitable for rill or sprinkler irrigation. Heavy leveling will expose calcareous subsoil low in fertility. Have your soil tested to determine fertilizer needs. Suitable for most irrigated crops including grapes and tree fruits.

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<sup>1/</sup>Adapted from "Water Holding Capacities of Columbia Basin Soils", Mel A. Hagood, D. E. Miller, and Eugene Larson, Ext. Circ. \_\_\_\_ (In Press), Cooperative Extension Service, Washington State University

<sup>2/</sup>Moderately deep or moderately shallow soils (20-40") over sands, gravels, etc.

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This Soil Guide Sheet 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