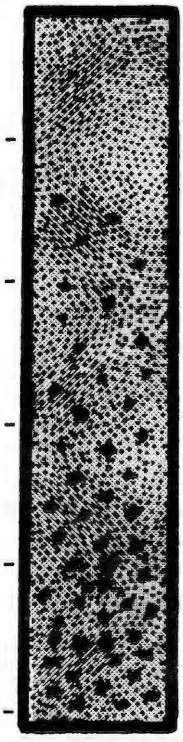
E.M. 3151
July 1969

BURBANK SOIL GUIDE SHEET

These are somewhat excessively or excessively drained soils of coarse texture underlain by gravel. They formed under grass and sagebrush in gravelly alluvial deposits mantled by a mixture of alluvium and wind-blown sand. They occupy level to moderately sloping terraces extending from the Yakima and Columbia Rivers. They are found at elevations of 300 to 800 feet and have a frost-free season of about 180 days. These soils are associated with the Quincy soils and are found in Benton, Douglas, Franklin, and Grant Counties.

Representative Description: BURBANK loamy fine sand	Water Holding Capacity In/in [1]	Permeability In/hr	Shrink-Swell Potential	Engineering Classification Unified	Engineering Classification AASHO
Surface layer: 0-16", dark grayish-brown loamy sand, loose; pH 6.6-7.3	.08	5.0-10.0	low	SM	A-2
Subsoil: 16-35", dark grayish-brown gravelly loamy sand, strongly calcareous; pH 7.4-7.8	.07	2.5-5.0	low	GM	A-2
Substratum: 35"+, sandy gravel, strongly calcareous; pH 7.4-8.4	.03	10.0+	low	GP	A-1



Caution: All Burbank 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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In cooperation with the United States Department of Agriculture
Issued in furtherance of the Acts of May 8 and June 30, 1914, by the Washington State University
Cooperative Extension Service, John P. Miller, Director

Capability Classification

Burbank soils	(percent slope) 0-2	2-5	5-15	15-25	25-40
1. Loamy fine sand, basalt substratum[3]	IVs	IVs	IVe		
2. Loamy sand, deep[2]	IVe	IVe	IVe	IVe	VIe
3. Loamy fine sand[4]	IVs	IVe	IVe	IVe	
4. Loamy sand[4]	IVs	IVe	IVe	IVe	
5. Stony loamy sand[5]	VIs	VIs			
6. Loamy sand, shallow[5]	IVs	IVs			

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 - Poor
Sand - Good
Gravel - Good
Road Fill - Good

Soil features affecting engineering uses:

Highway location - Subject to sand drifting, low shrink-swell potential
Dikes, Levees, Embankments - Moderate stability, rapid permeability, pervious when compacted, high shearing strength
Reservoir - Rapid permeability, rapid seepage
Septic disposal systems - Rapid permeability, excessive drainage

Suitability for irrigation farming:

Water holding capacity - Low
Infiltration - Rapid
Permeability - Rapid
Drainage - Excessively drained
Salinity and alkali hazard - Low
Erosion hazard - Wind erosion, severe; water erosion, slight, increases with slope

General Evaluation: Burbank soils require special management under irrigation. Because of low water holding capacity, frequent, light irrigations are necessary. Mobile plant nutrients can be easily leached. Suitable only for sprinkler irrigation. Leveling may expose gravelly areas in shallower soils. Have your soil tested to determine fertilizer needs. Mostly suitable for grain or forage crops.

1/ 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

2/ Deep and very deep soils (40"+) with no inhibiting layers in the profile.

3/ Moderately deep or moderately shallow soils (20-40") over hardpan, bedrock, claypan, etc.

4/ Moderately deep or moderately shallow soils (20-40") over sands, gravels, etc.

5/ Shallow soils (10-20") over sands, gravels, etc.

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