Send to Jim Street

10400

Rerun - 2/61 - 150
October 2, 1958
File 12.19

WATER HOLDING CHARACTERISTICS OF SOME CALIFORNIA SOILS

by

L. J. Booher and Clyde E. Houston

The determinations of soil-moisture characteristics shown in this report have been summarized in order to give farm advisors a better understanding of the quantities of water that can be retained in California soils. It should be recognized that the quantities shown apply only to the particular soil sampled. However, the range of values shown should give an indication of the water holding characteristics of similar soils from other locations. These data are a start in our desire to obtain more complete information about the water holding properties of California soils.

The soil moisture characteristics shown in this report were compiled from tests conducted in the laboratories of the Department of Irrigation at Davis and in the Department of Soils and Plant Nutrition at Berkeley. Soil samples submitted for testing were collected by farm advisors, soil surveyors and by the field staff of the State Department of Water Resources. Mr. William T. Beeman, Senior Laboratory Technician with the Agricultural Extension Service, did a large portion of the laboratory work at Davis and assembled the data from other sources. Dr. Esther P. Perry, of the Department of Soils and Plant Nutrition, was in charge of the laboratory work performed in Berkeley.

The soils are listed in alphabetatical order. The soil series and soil type shown were taken from existing soil surveys for the areas where the samples were collected. The county from which each soil was collected and the depth or depths of sampling are also indicated.

Field Capacity (F. C.) can be defined as the amount of water retained in a deep well drained soil after it has been wetted and drainage has taken place. This condition is generally reached in a deep, uniform, permeable well drained soil 24 to 48 hours after it has been irrigated. The values shown for F. C. in this report are, in most cases, based on laboratory determinations of the Moisture Equivalent of the soils. The moisture equivalent is the per cent of water, based on the dry weight of the soil, retained in a wetted soil after it has been exposed to a centrifugal force of 1,000 times gravity for a period of 30 minutes. This value approximates the field capacity for loam soils, is slightly higher for clay soils and is sometimes lower than the field capacity for sands. Whenever the moisture equivalent was determined to be less than 10 per cent the soil was also tested to determine its 1/3 atmosphere (bar) suction value. This was often found to be slightly higher than the moisture equivalent, and in those cases was used as the field capacity of the soil in this report. Even the 1/3 atmosphere suction value is probably lower than the field capacity of some coarse textured soils.

Permanent Wilting Percentage (P.W.P.) is the per cent of moisture remaining in the soil when plants wilt and fail to recover turgity when placed in a high humidity chamber. This was determined by growing dwarf sunflower

plants in the soil in containers placed in the greenhouse. The plant was allowed to proliferate until four mature leaves were obtained, at which time the soil was brought up to field capacity, the can was sealed with cotton around the lid opening, and allowed to wilt. This wilting period ranged from four days to a week. When wilting occured the plants were placed in a humid chamber overnight. If the mature leaves remained wilted (flaccid and curled) the plant was considered to be permanently wilted. However, if the plants regained turgidity, the can was again placed in the sunlight until wilting recurred, at which time the above procedure was repeated. The per cent moisture retained in the soil was then determined, correction being made for the weight of plant roots and the amount of moisture which they contained.

Estimated Bulk Density (d) is the weight of a given volume of dry soil. This can be expressed in grams per cubic centimeter, pounds per cubic foot or any other comparable units. The bulk density of the soil must be known in order to convert the percentage of available water (F.C. - P.W.P.) into depth of water for a given depth of soil.

There are no simple methods of determining the bulk density of undisturbed soils in place. In removing samples from the field errors are introduced in the measurement. For this reason the bulk densities shown in this report were estimated, unless otherwise stated. A graph was prepared from the assumed relation between the moisture equivalent and bulk density which follows:

Texture	Estimated Bulk Density gms/cc	Moisture Equivalent Range
Water	1.00	-----
Clay	1.15 - 1.25	40 - 20%
Loam	1.25 - 1.35	20 - 10%
Sand	1.35 - 1.50	10 - 3%
Rock	2.65	-----

While it is recognized that there are probably errors in the above table, the errors are probably no greater than those obtained in using present methods of making measurements of bulk density. Compacted soils have a higher bulk density than shown, but if the true values were used this would result in a greater calculated amount of available water being stored in the soil; whereas roots are usually not able to penetrate compacted soils with the result that less water is actually available to the plants.

Inches of Available Water per Foot Depth of Soil. The formula for calculating the inches depth of available water per foot depth of soil is as follows:

$$\frac{F.C. - P.W.P.}{100} \times d \times 12 = \text{inches of available water per foot depth of soil}$$

where d is the bulk density of the soil.

Soils containing coarse gravel were screened before testing. The inches of available water per foot depth of soil were corrected to allow for the volume of gravel screened from these soils.

Legend

+ , the 1/3 bar suction value was used as the field capacity instead of the moisture equivalent.
( ), measured field bulk density or volume weight.
♦ , inches of available water per foot depth of soil has been corrected for volume of rock.

SOIL SERIES

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			ADELANTO			
Sand	Los Angeles	0 - 24	9.54%	4.80%	1.36	0.72
		24 - 72	11.10	5.87	1.34	0.77
"	"	0 - 24	6.83	3.64	1.40	0.49
		24 - 72	8.35	4.42	1.37	0.56
			AHWAHNEE			
Coarse Sandy Loam	Fresno	0 - 10	12.3		(1.6)	1.52
		10 - 36	11.6		(1.6)	1.23
			AIKEN			
Loam	Butte	0 - 12	33.03	20.37	1.18	1.79
Stony Clay Loam	Placer	0 - 12	21.33	8.90	1.24	1.85
"	"	0 - 12	24.25	13.44	1.22	1.58
"	"	0 - 12	22.41	9.32	1.23	1.95
"	"	0 - 12	22.43	11.05	1.23	1.69
"	"	0 - 12	24.05	13.61	1.22	1.53
"	"	0 - 12	25.88	13.57	1.21	1.79
"	"	0 - 12	27.26	15.00	1.21	1.78
"	"	0 - 12	19.11	9.30	1.26	1.48
Clay Loam	Placer	0 - 12	33.61	21.07	1.18	1.78
		12 - 24	29.69	20.38	1.19	1.34
"	"	0 - 8	29.38	20.11	1.20	1.33
"	"	0 - 12	28.33	19.57	1.20	1.26
"	"	0 - 12	36.59	19.51	1.17	2.40
"	"	0 - 12	40.29	26.43	1.15	1.91

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			AIKEN (continued)			
Clay Loam	Placer	0 - 12	21.86	10.60	1.24	1.68
"	"	0 - 12	33.81	21.30	1.18	1.77
" (Winkleman)	"	0 - 12	28.43			
		12 - 24	25.76			
		24 - 36	27.11			
		36 - 48	29.98			
" (Caldwell)	"	0 - 12	28.06			
		12 - 24	27.00			
		24 - 36	28.35			
		36 - 48	30.36			
			AIKEN - SHALLOW PHASE			
---	Placer	---	25.06%	12.26%	1.22	1.87
	"		32.10	14.66	1.18	2.47
	"		23.69	9.83	1.23	2.05
	"		22.24	7.94	1.24	2.13
	"		20.84	9.82	1.24	1.64
	"		31.35	18.78	1.19	1.79
	"		18.08	7.88	1.27	1.55
	"		23.64	13.65	1.22	1.46
	"		27.84	16.23	1.20	1.67
			ALAMO			
Clay Loam Adobe	Yuba	0 - 12	25.25	9.59		
		12 - 24	23.61	9.55		
			ALTAMONT			
Fine Sandy Loam	Los Angeles	0 - 12	14.88%	7.83%	1.30	1.10
		12 - 18	14.66	7.59	1.30	1.10
		18 - 24	16.62	8.58	1.28	1.23

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			ALTAMONT (continued)			
Loam	Los Angeles	0 - 15	18.70	9.78	1.26	1.35
		15 - 27	18.32	10.15	1.26	1.25
		27 - 42	19.16	9.35	1.26	1.48
"	"	0 - 24	25.91	14.59	1.21	1.64
		24 - 54	26.37	14.66	1.21	1.70
Silty Clay Loam	Sonoma	12 - 24	22.36	12.04	1.23	1.52
Clay Loam	Los Angeles	0 - 30	20.92	11.29	1.24	1.43
		30 - 50	24.70	12.76	1.22	1.75
"	"	0 - 30	32.11	18.37	1.18	1.95
		30 - 50	36.53	20.56	1.17	2.24
"	"	0 - 18	28.26	17.58	1.20	1.54
		18 - 36	28.09	17.15	1.20	1.58
"	"	0 - 24	21.65	12.30	1.24	1.39
		24 - 48	25.50	14.48	1.21	1.60
"	"	0 - 24	28.54	14.95	1.20	1.96
		24 - 60	32.88	17.45	1.18	2.18
Clay	Los Angeles	0 - 18	19.70	11.43	1.25	1.24
		18 - 30	23.28	12.91	1.23	1.53
		30 - 40	24.18	13.39	1.22	1.58
"	"	0 - 15	11.23	5.94	1.34	0.85
		15 - 36	16.34	9.31	1.26	1.45
			ALVISO			
Clay	Monterey	0 - 16	55.15%	37.40%	1.10	2.34
			AMADOR			
Loam	Stanislaus	0 - 6	19.7%	6.83%	1.25	1.93
		6 - 13	19.6	7.76	1.26	1.79
			ANTIOCH			
Fine Sandy Loam	Monterey	0 - 16	19.44%	8.46%	1.26	1.66
Clay Loam	San Joaquin	0 - 12	18.72	9.66	1.26	1.37

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			ARBUCKLE			
Gravelly Loam	Glenn	0 - 13	16.1		(1.6)	
		13 - 21	16.3		(1.7)	
		21 - 32	16.9		(1.6)	
		32 - 60	17.4		---	
			ARVIN			
Sandy Loam	Fresno	0 - 36	4.4	1.42	1.46	0.52
		36 - 72	4.2	1.62	1.47	0.46
Fine Sandy Loam (alkaline phase)	"	0 - 36	15.2	11.03	(77.5#)	0.62
		36 - 72	29.2	10.91	(78.2#)	2.77
Very Fine Sandy Loam	"	0 - 36	25.9	6.41	(73.2#)	2.74
		36 - 72	18.2	4.49	(78.2#)	2.06
Loamy Fine Sand	"	0 - 36	11.7	3.44	1.32	1.31
		36 - 72	8.9	3.74	1.37	0.85
Loam	"	0 - 36	16.9	7.88	1.28	1.39
		36 - 72	19.1			
			ATWELL			
---	Humboldt	0 - 6	33.4		(1.2)	2.42
		6 - 17	29.0		(1.3)	2.06
		17 - 30	26.6		---	1.58
		30 - 40	23.2		---	1.33
		40 - 45	23.7		(1.8)	2.10
		45 - 55	19.3		(2.0)	1.97
			AUBERRY			
Sandy Loam	Fresno	0 - 7	13.3		(1.5)	1.30
		7 - 12	15.8		(1.6)	1.93
		12 - 16	16.0		(1.7)	1.86
		16 - 35	16.9		(1.8)	1.87
		35 - 42	16.2		(1.6)	2.05
		42+	9.10		1.4	0.85
			AUBURN			
Stony Loam	Stanislaus	0 - 6	19.7%	7.80%	1.25	1.79

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			AUBURN (continued)			
Stony Loam	Yuba	0 - 12	21.97	9.23	1.24	1.90
		12 - 24	21.50	9.35	1.24	1.81
"	"	0 - 12	23.18	9.85	1.23	1.97
		12 - 24	22.27	10.67	1.24	1.73
Loam	Placer	0 - 7	17.7		1.4	2.4
		7 - 27	18.9		1.4	2.2
		27 - 35	22.2		1.4	2.4
Clay Loam	"	0 - 12	18.0		1.4	2.4
		12 - 25	19.2		1.4	2.3
		25 - 33	18.3		1.4	2.1
			AYAR			
Clay	Glenn	0 - 10	31.1	17.1	1.19	2.00
		10 - 41	30.6	15.7	1.19	2.13
			BALE			
Gravelly Loam	Napa	0 - 12	18.5	10.0	1.38	1.41
		12 - 24	18.0	13.0	1.60	0.96
Loam	"	0 - 12	21.83	9.06	1.24	1.90
			BEAR			
Loam	Yuba	0 - 12	18.99	9.20	1.26	1.48
		12 - 24	18.22	9.01	1.27	1.40
		24 - 36	17.59	8.72	1.27	1.35
		36 - 48	15.77	7.25	1.29	1.32
		48 - 60	13.61	6.47	1.31	1.12
"	"	0 - 12	21.96	10.90		
		12 - 24	22.37	11.42		
		24 - 36	19.67	10.11		
		36 - 48	22.75	11.95		
		48 - 60	22.58	12.40		
"	"	0 - 12	22.19	9.71		
		12 - 24	19.78	10.25		
		24 - 36	21.08	10.28		
		36 - 48	21.08	10.75		
		48 - 60	20.76	10.65		

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			BEAR (continued)			
Loam	Fresno	0 - 36	28.3	12.49	1.20	2.28
		36 - 72	23.8	12.25	1.22	1.69
Gravelly Clay Loam	Stanislaus	0 - 6	20.3		1.6	2.13
		6 - 21	22.0		1.8	2.87
		21 - 36	22.0		1.8	2.17
		36 - 53	19.2		1.7	---
			BENMORE			
Clay Loam	Lake	0 - 7	22.6	7.5	1.23	1.90
		7 - 21	25.5	10.9	1.21	2.06
		21 - 37	22.5	8.0	1.23	1.45
		37 - 41	21.4	7.7	1.24	2.04
			BERRENDAS			
Clay	Tehama	---	29.18	18.80	1.20	1.50
		---	32.92	19.37	1.18	1.92
			BOTELLA			
Silty Clay Loam	Monterey	Ridge - 6	30.29	16.57	1.19	1.96
		6 - 18	31.77	19.82	1.18	1.69
		24 - 30	32.96			
"	"	Ridge - 6	29.67	17.25	1.19	1.77
		12 - 18	32.20	19.61	1.18	1.78
		24 - 30	34.04			
"	"	Ridge	27.94	11.85	1.20	2.32
		0 - 6	28.67	12.14	1.20	2.38
		6 - 12	27.76	12.16	1.20	2.25
		12 - 18	27.49	11.86	1.20	2.25
		18 - 24	28.85	12.84	1.20	2.31
		24 - 30	29.77	13.79	1.20	2.30
		30 - 36	30.07	14.94	1.19	2.18
		36 - 42	30.06	---	1.19	---
"	"	Ridge	28.60			
		0 - 6	29.04			
		6 - 12	28.35			
		12 - 18	27.42			
		18 - 24	28.13			
		24 - 30	29.37			
		30 - 36	29.74			
		36 - 42	29.59			

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
		BOTELIA (continued)				
Silty Clay Loam	Monterey	Ridge	29.20	11.44	1.20	2.56
		0 - 6	29.44	11.76	1.20	2.55
		6 - 12	30.90	13.48	1.19	2.50
		12 - 18	31.82	14.66	1.18	2.43
		18 - 24	30.80	14.61	1.19	2.33
		24 - 30	30.46	14.74	1.19	2.26
		30 - 36	29.70	13.98	1.19	2.26
		36 - 42	31.19	---	1.18	---
"	"	Ridge	28.61			
		0 - 6	28.93			
		6 - 12	29.44			
		12 - 18	31.38			
		18 - 24	31.05			
		24 - 30	30.35			
		30 - 36	30.38			
		36 - 42	29.91			
"	"	Ridge - 6	29.30	17.97	1.20	1.63
		12 - 18	30.91	19.16	1.19	1.69
		24 - 30	29.57	---	---	---
"	"	Ridge - 6	28.04	15.97	1.20	1.74
		12 - 18	30.12	19.76	1.19	1.49
		24 - 30	31.84	---	---	---
"	"	0 - 6		15.44		
		6 - 12		15.45		
		12 - 18		15.71		
		18 - 24		16.77		
"	"	0 - 6		15.12		
		6 - 12		14.65		
		12 - 18		15.44		
		18 - 24		17.37		
"	"	0 - 6		16.46		
		6 - 12		16.62		
		12 - 18		16.79		
		18 - 24		15.76		
"	"	0 - 6		13.82		
		6 - 12		16.33		
		12 - 18		17.55		
		18 - 24		17.16		

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
		BOTELLA (continued)				
Silty Clay Loam	Monterey	0 - 6	23.42	9.81	1.23	2.01
		6 - 12	23.26	10.07	1.23	1.95
		12 - 18	23.64	10.24	1.23	1.98
		18 - 24	24.21	10.75	1.22	1.97
		24 - 30	26.16	11.01	1.21	2.20
		30 - 36	27.87	12.92	1.20	2.15
		36 - 42	26.79	13.18	1.21	1.98
		42 - 48	25.26	12.07	1.21	1.92
"	"	0 - 6	23.48	10.33	1.23	1.94
		6 - 12	23.44	10.06	1.23	1.97
		12 - 18	24.01	10.39	1.22	1.99
		18 - 24	24.24	10.90	1.22	1.95
		24 - 30	26.35	10.84	1.21	2.25
		30 - 36	27.86	12.01	1.20	2.28
		36 - 42	26.89	11.88	1.21	2.18
		42 - 48	24.98	11.14	1.22	2.03
"	"	0 - 6	22.49	9.83	1.23	1.87
		6 - 12	22.34	10.13	1.23	1.80
		12 - 18	22.68	10.02	1.23	1.87
		18 - 24	22.34	10.06	1.23	1.81
		24 - 30	24.75	9.54	1.22	2.23
		30 - 36	26.82	9.63	1.21	2.50
		36 - 42	26.25	10.44	1.21	2.30
		42 - 48	23.93	11.66	1.22	1.80
"	"	0 - 6	23.53	11.38	1.23	1.79
		6 - 12	24.04	11.66	1.22	1.81
		12 - 18	22.76	11.52	1.23	1.66
		18 - 24	23.26	11.18	1.23	1.78
		24 - 30	25.44	13.32	1.21	1.76
		30 - 36	24.38	12.59	1.22	1.73
		36 - 42	23.92	12.19	1.22	1.72
		42 - 48	24.55	10.56	1.22	2.05
"	"	0 - 6	24.13	10.56	1.22	1.99
		6 - 12	24.53	11.31	1.22	1.94
		12 - 18	23.26	10.55	1.23	1.88
		18 - 24	25.11	12.52	1.22	1.84
		24 - 30	24.08	12.11	1.22	1.76
		30 - 36	22.66	11.45	1.23	1.65
		36 - 42	21.50	11.07	1.24	1.55
		42 - 48	22.02	10.95	1.24	1.65

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			BOTELLA (continued)			
Silty Clay Loam	Monterey	0 - 6	22.99	9.89	1.23	1.93
		6 - 12	22.92	10.24	1.23	1.87
		12 - 18	22.19	9.56	1.24	1.88
		18 - 24	21.72	9.26	1.24	1.85
		24 - 30	21.89	9.25	1.24	1.88
		30 - 36	22.87	9.95	1.23	1.91
		36 - 42	25.82	10.98	1.21	2.15
		42 - 48	25.80	11.69	1.21	2.05
"	"	0 - 6	25.35	12.01	1.21	1.94
		6 - 12	26.06	12.31	1.21	2.00
		12 - 18	24.25	11.12	1.22	1.91
		18 - 24	26.56	12.18	1.21	2.09
		24 - 30	27.24	13.86	1.21	1.94
		30 - 36	24.46	12.67	1.22	1.73
		36 - 42	22.53	11.64	1.23	1.61
		42 - 48	22.28	11.25	1.23	1.63
"	"	0 - 6	24.13	11.02	1.22	1.92
		6 - 12	24.24	11.23	1.22	1.90
		12 - 24	23.77	11.26	1.22	1.83
		24 - 30	24.68	11.55	1.22	1.92
		30 - 36	25.69	12.30	1.21	1.94
		36 - 42	22.21	11.36	1.24	1.61
		42 - 48	20.94	10.64	1.24	1.53
		48 - 52	19.30	10.43	1.26	1.34
			BRENTWOOD			
Clay Loam	Contra Costa	0 - 8	25.75	16.03	1.21	1.41
		8 - 20	26.47	16.35	1.21	1.47
		20 - 50	26.44	16.43	1.21	1.45
		50 - 76	26.62	17.04	1.21	1.39
"	"	0 - 12	21.28	12.57	1.24	1.30
		12 - 30	21.01	11.95	1.24	1.35
		30 - 60	21.85	11.67	1.24	1.51
		62 - 96	27.23	16.61	1.21	1.54
			BUNNELL			
Rocky Gravelly Loam	Glenn	0 - 7	16.8	---	1.28	1.33
		7 - 23	15.9	---	1.29	1.13

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
Fine Sand	Lassen	0 - 12	14.44	6.91	1.30	1.17
		12 - 24	11.21	9.58	1.34	0.26
		24 - 36	13.65	9.51	1.31	0.65
		36 - 42	12.19	9.40	1.32	0.44
"	"	0 - 12	17.09	9.92	(1.34)	1.15
		12 - 24	21.84	13.19	(1.56)	1.62
		24 - 36	18.38	12.92	(1.44)	0.94
		36 - 48	14.46	10.81	(1.64)	0.72
		48 - 60	13.22	9.75	(1.68)	0.70
"	"	0 - 12	16.96	10.65	1.28	0.97
(shallow phase)		12 - 24	22.89	16.28	1.23	0.98
		24 - 36	17.62	11.88	1.27	0.87
		36 - 48	16.37	11.59	1.28	0.73
		48 - 60	15.40	11.22	1.29	0.65
		60 - 66	18.45	11.65	1.26	1.03
		66 - 72	43.67	20.54	1.14	3.16
		72 - 84	85.46	30.09	1.08	7.20
"	"	0 - 12	16.91	10.81	1.28	0.94
		12 - 24	24.19	14.62	1.22	1.40
		24 - 36	15.95	11.82	1.29	0.64
		36 - 48	14.23	10.89	1.30	0.52
		48 - 60	16.55	8.70	1.28	1.21
		60 - 66	16.81	9.00	1.28	1.20
		66 - 72	54.64	23.80	1.10	4.07
		72 - 84	84.32	32.98	1.08	6.65
"	"	0 - 12	18.24	11.42	1.27	1.04
		12 - 24	19.88	13.37	1.25	0.98
		24 - 36	18.58	13.68	1.26	0.74
		36 - 48	14.20	11.28	1.30	0.46
		48 - 60	13.12	10.01	1.31	0.49
		60 - 66	19.81	10.26	1.25	1.43
		66 - 72	58.16	19.60	1.09	5.04
		72 - 84	97.85	35.91	1.04	7.73
"	"	0 - 12	17.71	10.37	1.27	1.12
		12 - 24	22.14	14.52	1.24	1.13
		24 - 36	19.76	13.35	1.25	0.96
		36 - 48	13.56	9.85	1.31	0.58
		48 - 60	13.88	10.03	1.30	0.60
		60 - 66	19.83	10.45	1.25	1.40
		66 - 72	52.58	24.61	1.09	3.66
		72 - 84	104.65	35.44	1.02	8.47

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			BUTTE			
Sandy Loam	Lake	0 - 4	28.4	9.2	1.20	2.62
		4 - 11	20.0	6.5	1.25	1.73
		11 - 24	16.5	5.9	1.28	1.18
		24 - 38	13.0	6.0	1.31	1.04
		38+	11.8	5.8	1.32	0.95
			CAJON			
Sand	Los Angeles	0 - 18	12.63	6.06	1.32	1.04
		18 - 36	11.51	5.48	1.33	0.96
		36 - 60	13.71	6.47	1.30	1.13
"	"	0 - 18	8.32+	4.07	1.38	0.70
		18 - 36	7.10+	3.52	1.40	0.57!
		36 - 60	7.92+	4.01	1.38	0.65
Fine Sandy Loam	"	0 - 18	8.90+	3.69	1.37	0.86
		18 - 36	9.67+	3.96	1.35	0.85!
		36 - 60	11.39	5.17	1.33	0.99
"	Tulare	0 - 6	17.97	6.63	1.27	1.73
		6 - 12	17.09	7.41	1.28	1.49
		12 - 24	14.94	5.93	1.30	1.41
		24 - 36	19.29	7.71	1.26	1.75
		36 - 48	20.44	6.72	1.25	2.06
			CAJON/MADERA			
Fine Sandy Loam	Tulare	0 - 12	21.00%	10.86%	1.24	1.51
		12 - 24	17.81	7.87	1.27	1.51
		24 - 36	14.78	6.95	1.30	1.22
		36 - 48	14.28	6.84	1.30	1.16
"	"	0 - 12	19.20	10.55	1.26	1.31
		12 - 24	17.66	8.56	1.27	1.39
		24 - 36	16.10	7.53	1.29	1.33
		36 - 48	16.38	7.85	1.28	1.31
"	"	0 - 12	20.12	10.78	1.25	1.32
		12 - 24	16.41	7.96	1.28	1.30
		24 - 36	15.86	7.47	1.29	1.30
		36 - 48	14.88	7.21	1.30	1.20
"	"	0 - 12	20.34	10.29	1.25	1.51
		12 - 24	18.46	8.32	1.26	1.53
		24 - 36	15.94	7.32	1.29	1.33
		36 - 48	16.40	7.56	1.28	1.36

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
		CHINO (continued)				
Silty Clay Loam	Tulare	0 - 12	29.03	14.94	1.19	2.01
		12 - 24	25.27	13.92	1.22	1.66
		24 - 36	26.63	11.49	1.21	2.20
		36 - 48	21.66	10.43	1.24	1.67
"	"	0 - 12	28.67	15.84	1.19	1.97
		12 - 24	26.63	15.39	1.20	1.63
		24 - 36	25.30	14.12	1.21	1.64
		36 - 48	25.52	13.26	1.21	1.78
"	"	0 - 12	26.49	15.66	1.20	1.56
		12 - 24	23.90	12.76	1.22	1.63
		24 - 36	22.11	11.54	1.23	1.56
		36 - 48	20.88	9.42	1.25	1.72
"	"	0 - 12	27.71	17.01	1.20	1.54
		12 - 24	27.17	15.06	1.20	1.74
		24 - 36	24.87	13.53	1.22	1.66
		36 - 48	24.21	12.42	1.22	1.73
"	"	0 - 12	28.28	16.56	1.19	1.67
		12 - 24	27.83	15.88	1.19	1.71
		24 - 36	26.18	13.57	1.21	1.83
		36 - 48	25.74	13.75	1.20	1.73
"	"	0 - 12	28.89	15.88	1.20	1.87
		12 - 24	26.70	14.40	1.21	1.79
		24 - 36	23.45	11.47	1.23	1.77
		36 - 48	26.20	13.42	1.21	1.86
"	"	0 - 12	29.93	15.83	1.19	2.01
		12 - 24	28.78	15.99	1.20	1.84
		24 - 36	25.72	12.48	1.21	1.92
		36 - 48	25.25	12.38	1.22	1.57
"	"	0 - 12	28.83	15.06	1.20	1.98
		12 - 24	26.93	14.38	1.21	1.82
		24 - 36	23.90	12.24	1.22	1.71
		36 - 48	23.79	11.65	1.22	1.78
"	"	0 - 12	26.01	14.25	1.21	1.69
		12 - 24	22.93	12.04	1.23	1.61
		24 - 36	19.47	10.36	1.26	1.38
		36 - 48	18.91	9.11	1.26	1.48
Clay Loam	"	0 - 9½	28.85	14.88	1.20	2.01
		9½ - 17½	27.82	14.52	1.20	1.92
		17½ - 24½	21.02	10.92	1.24	1.50
		24 - 31	19.44	10.17	1.26	1.40

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			CHIQUITO			
Stony Clay Sandy Loam	Fresno	0 - 5	13.0	---	1.31	---
		5 - 14	13.0	---	(1.5)	---
		14 - 22	12.3	---	1.32	---
			CHUALAR			
Sandy Loam	Monterey	---	14.40%	6.43%	1.30	1.24
"	Stanislaus	0 - 6	7.2	---	(1.6)	0.81
		6 - 14	8.3	---	(1.7)	0.96
		14 - 24	8.2	---	(1.7)	0.90
		24 - 32	10.6	---	(1.9)	1.25
		32 - 48	13.1	---	(1.9)	1.57
		48 - 58	13.3	---	(1.9)	1.55
		58 - 72	7.9	---	(1.6)	0.75
Loam	Monterey	0 - 15	12.85	5.61	1.31	1.14
			CLIMAX			
Clay	Mendocino	0 - 3	27.2	---	(1.9)	2.44
		3 - 17	29.4	---	(1.9)	2.49
		17 - 27	34.3	---	(1.9)	3.60
		27 - 37	26.5	---	(1.9)	---
			COACHELLA			
---	Riverside	---	4.67	1.92	1.46	0.48
			3.67	1.55	1.49	0.37
			COLUMBIA			
Sand	Yuba	0 - 12	3.21	1.47	1.50	0.31
		12 - 24	3.02	1.55	1.50	0.26
		24 - 36	1.23	0.81	1.58	0.08
		36 - 48	1.29	0.81	1.58	0.09
		48 - 60	3.96	1.38	1.47	0.46
Fine Sandy Loam	Glenn	0 - 9	19.4	---	(1.45)	---
		9 - 14	22.7	---	(1.30)	---
		14 - 28	19.4	---	(1.20)	---
		28 - 39	31.1	---	(1.40)	---
		39 - 58	33.1	---	(1.25)	---

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
		COLUMBIA (continued)				
Fine Sandy Loam	Glenn	0 - 20	31.7	11.3	1.18	2.90
		20 - 42	21.9	8.8	1.24	1.95
		42 - 60	17.4	7.4	1.27	1.55
"	Placer	---	9.84	4.52	1.36	0.87
Very Fine Sandy Loam	Glenn	0 - 12	26.2	9.4	1.21	2.44
		12 - 23	33.1	12.2	1.18	2.96
		23 - 34	30.8	13.6	1.19	2.46
		34 - 60	36.0	11.5	1.17	3.44
Silt Loam	Yuba	0 - 12	27.5	10.7	1.20	2.42
		12 - 24	35.0	13.7	1.17	2.99
		24 - 36	33.4	13.7	1.18	2.79
		36 - 48	26.1	11.2	1.21	2.16
		48 - 60	22.6	10.2	1.23	1.83
Loam	Tehama	---	21.85	11.14	1.23	1.59
			24.83	14.63	1.22	1.49
"	Yuba	0 - 12	26.54	12.38	1.21	2.06
		12 - 24	17.02	8.78	1.28	1.27
		24 - 36	25.51	11.26	1.21	2.07
		36 - 48	27.70	11.82	1.20	2.29
		48 - 60	28.47	12.95	1.20	2.23
"	"	0 - 12	29.93	11.60	1.19	2.62
		12 - 24	36.71	15.22	1.17	3.02
		24 - 36	30.39	13.00	1.19	2.48
		36 - 48	37.20	12.03	1.17	3.53
		48 - 60	36.04	17.66	1.17	2.58
Loam	Tehama	6 - 24	22.53	11.53		
		24 - 44	27.70	15.69		
"	Stanislaus	0 - 7	30.0	11.4	(1.3)	2.45
		7 - 13	24.1	9.9	(1.4)	2.20
		13 - 40	12.0	4.7	(1.4)	0.86
		40 - 60	18.8	---	(1.5)	1.98
		COMETA				
Coarse Sandy Loam	Stanislaus	0 - 6	9.41	2.83	(1.73)	1.37
		6 - 18	10.12	4.94	(1.82)	1.13
		18 - 24	14.48	7.75	(1.85)	1.49
		24 - 30	10.01	5.55	(1.81)	0.97

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			CONE			
Very Gravelly Loam	Tehama	0 - 3	80.3			
		3 - 7	59.8			
		7 - 31	36.3			
		31 - 70	36.7			
Very Gravelly Silt Loam	"	0 - 8	39.1			
			CONEJO			
Gravelly Loam	San Benito	0 - 12	22.57	11.34	1.23	1.66
		12 - 24	22.69	11.11	1.23	1.71
Clay Loam	Solano	0 - 16	24.90	13.67	1.22	1.64
		16 - 32	24.23	12.85	1.22	1.67
		32 - 48	18.08	10.17	1.27	1.20
Clay Adobe	Santa Clara	6 - 36	34.40	18.30	1.17	2.26
		36 - 48	30.59	15.57	1.19	2.14
		48 - 96	23.72	11.60	1.22	1.77
			CONTRA COSTA			
Clay Loam	Glenn	0 - 5	24.6	---	(1.6)	1.90
		5 - 12	24.3	---	(1.7)	1.90
		12 - 21	24.2	---	(1.8)	1.88
		21 - 34	23.9	---	(1.8)	2.03
			CORNING			
Gravelly Loam	Placer	---	11.97	4.63	1.32	1.16
"	"	---	15.59	9.19	1.29	0.99
"	"	---	12.74	4.72	1.31	1.26
"	"	---	12.19	4.67	1.32	1.19
"	Sonoma	12 - 24	24.07	15.41	(1.22)	1.21
		24 - 36	33.21	16.00	(1.18)	2.43
Gravelly Sandy Loam	Stanislaus	0 - 8	10.4	---	(1.9)	1.98
		8 - 16	11.9	---	(1.9)	1.48
		16 - 26	13.2	---	(1.9)	1.14
		26 - 39	15.8	---	1.29	1.07
		39+	16.1	---	1.29	1.25

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			CORNING (continued)			
Gravelly Sandy Loam	Glenn	0 - 13	14.12	4.7	1.30	1.46
		13 - 26	36.8	17.5	1.21	1.37
		26 - 40	27.9	12.7	1.20	2.19
		40 - 60	30.8	15.5	1.19	2.09
Sandy Loam	Glenn	0 - 12	14.8	5.2	1.30	1.50
Loam	Sonoma	12 - 24	20.81	13.30	(1.24)	1.12
		24 - 36	20.99	13.44	(1.24)	1.12
		36 - 60	23.45	16.41	(1.22)	1.03
"	Glenn	0 - 15	26.0	15.6	1.21	1.45
		15 - 30	27.0	16.5	1.21	1.54
		30 - 60	26.8	17.1	1.20	1.56
			CORTINA			
Very Gravelly Sandy Loam	Glenn	0 - 8	8.7	---	1.37	---
		8 - 32	8.2	---	1.38	---
		32 - 60	3.4	---	1.49	---
Gravelly Loamy Sand	"	0 - 12	8.6	3.4	1.38	0.83
		12 - 36	7.0	3.4	1.40	0.62
			DAULTON			
Sandy Loam	Fresno	0 - 36	9.7	3.30	(83.4#)	1.02
		36 - 72	11.5	4.10	1.33	1.18
Fine Sandy Loam	"	0 - 36	12.6	3.83	(72.0#)	1.21
		36 - 72	13.3	4.20	(72.0)	1.26
Loam	"	0 - 36	11.3	3.40	(70.0#)	1.06
		36 - 72	12.6	3.83	(72.0#)	1.21
			DELHI			
Sand	Stanislaus	0 - 12	4.20	1.4	1.5	0.64
		12 - 24	3.5	1.3	(1.7)	0.45
		24 - 60	3.5	1.4	(1.3)	0.43
			DENVERTON			
Clay Adobe	Solano	0 - 16	31.57	19.00	1.18	1.78
		16 - 32	31.87	16.33	1.18	2.20
		32 - 48	31.45	17.52	1.18	1.97

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			DUBLIN (continued)			
Clay Adobe	Santa Clara	6 - 12	30.97	17.61	1.19	1.91
		12 - 24	29.48	17.39	1.20	1.74
		24 - 48	25.04	13.74	1.22	1.61
		48 - 72	20.09	11.44	1.25	1.30
			DUCOR			
Adobe Clay	Tulare	0 - 12	22.53	12.28	1.23	1.51
		12 - 24	22.11	12.24	1.24	1.47
"	"	0 - 12	30.59	16.08	1.19	2.07
		12 - 24	29.49	17.43	1.20	1.74
Clay Adobe	"	---	26.56	14.4	1.21	1.77
Adobe	"	0 - 6	20.76	9.66	1.25	1.67
			EGBERT			
Clay	Solano	0 - 6	48.2			
		6 - 12	51.0			
		12 - 18	54.6			
		18 - 24	55.8			
"	"	0 - 6	51.1			
		6 - 12	52.3			
		12 - 18	55.6			
		18 - 24	56.3			
"	"	0 - 6	49.4			
		6 - 12	52.9			
		12 - 18	51.9			
		18 - 24	51.1			
			ELDER			
Gravelly Sandy Loam	Siskiyou	0 - 12	12.66	5.03	(1.31)	1.20
		12 - 24	12.30	5.58	(1.46)	1.18
		24 - 36	9.51	5.09	(1.50)	0.80
		36 - 48	9.60	4.58	(1.42)	0.86
		48 - 60	8.71	4.03	(1.42)	0.80
		60 - 72	11.32	4.51	(1.48)	1.21
		72 - 84	9.67	4.14	(1.55)	1.03

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
		ELDER (continued)				
Gravelly Sandy Loam	Siskiyou	0 - 12	20.51	7.35	(1.25)	1.97
		12 - 24	16.40	7.14	(1.44)	1.60
		24 - 36	14.26	6.46	(1.42)	1.33
		36 - 48	11.20	5.16	(1.32)	0.96
		48 - 60	11.23	4.79	(1.17)	0.85
		60 - 72	9.32	3.51	(1.62)	1.13
		72 - 84	7.65	3.36	(1.60)	0.82
"	"	0 - 12	19.87	7.02	(1.26)	1.94
		12 - 24	16.43	6.64	(1.38)	1.62
		24 - 36	13.12	5.86	(1.26)	1.10
		36 - 48	10.84	4.69	(1.23)	0.91
		48 - 60	9.86	4.67	(1.30)	0.81
		60 - 72	9.70	4.36	(1.41)	0.90
		72 - 84	8.45	3.82	(1.48)	0.82
"	"	0 - 12	14.54	5.73	(1.31)	1.38
		12 - 24	14.07	6.63	(1.44)	1.29
		24 - 36	11.93	5.24	(1.46)	1.17
		36 - 48	8.12	4.24	(1.41)	0.66
		48 - 60	8.28	4.02	(1.41)	0.72
		60 - 72	8.52	4.25	(1.54)	0.79
Silt Loam	Glenn	0 - 14	24.74	12.07	(1.33)	2.02
		14 - 26	25.09	11.97	(1.40)	2.20
		26 - 38	23.27	12.04	(1.42)	1.91
		38 - 50	21.46	10.14	(1.56)	2.12
		50 - 62	20.31	9.25	(1.57)	2.08
		62 - 74	17.32	6.81	(1.56)	1.97
		74 - 84	17.29	6.72	(1.59)	2.02
"	"	0 - 14	20.98	9.92	(1.43)	1.90
		14 - 26	---	10.92	(1.59)	1.88
		26 - 38	21.63	10.43	(1.40)	1.88
		38 - 50	20.74	8.74	(1.54)	2.22
		50 - 62	20.61	7.62	(1.45)	2.26
		62 - 74	20.04	6.96	(1.43)	2.24
		74 - 84	23.38	6.89	(1.35)	2.67
Silty Loam	Siskiyou	0 - 14	24.74	12.07	(1.33)	2.02
		14 - 26	25.09	11.97	(1.40)	2.20
		26 - 38	23.27	12.04	(1.42)	1.91
		38 - 50	21.46	10.14	(1.56)	2.12
		50 - 62	20.31	9.25	(1.57)	2.08
		62 - 74	17.32	6.81	(1.56)	1.97
		74 - 84	17.29	6.72	(1.59)	2.02

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			ELDER (continued)			
Silty Loam	Siskiyou	0 - 14	20.98	9.92	(1.43)	1.90
		14 - 26	---	10.92	(1.59)	1.88
		26 - 38	21.63	10.43	(1.40)	1.88
		38 - 50	20.74	8.74	(1.54)	2.22
		50 - 62	20.61	7.62	(1.45)	2.26
		62 - 74	20.04	6.96	(1.43)	2.24
		74 - 84	23.38	6.89	(1.35)	2.67
Loam	Monterey	Ridge - 6	27.51	16.57	1.20	1.58
		12 - 18	29.41	16.42	1.20	1.87
		24 - 30	28.07	17.71	1.20	1.49
"	"	Ridge - 6	29.00	17.54	1.20	1.65
		12 - 18	29.26	17.95	1.20	1.63
		24 - 30	28.14	17.34	1.20	1.56
			ELKHORN			
Sand	Monterey	0 - 24	5.63	3.42	1.43	0.38
			EMPIRE			
Clay Loam	Humboldt	0 - 24	38.05	22.62	(1.16)	2.15
"	"	0 - 30	29.38	19.97	(1.19)	1.34
			ESPARTO			
Silty Clay Loam	Solano	0 - 16	21.27	12.77	1.24	1.26
		16 - 32	22.39	13.32	1.24	1.35
		32 - 48	21.97	12.60	1.24	1.39
"	"	0 - 16	24.64	13.08	1.22	1.69
		16 - 32	24.60	12.33	1.22	1.80
		32 - 48	22.59	12.45	1.23	1.50
"	"	0 - 16	22.67	12.21	1.23	1.54
		16 - 32	22.76	12.19	1.23	1.56
		32 - 48	22.93	12.07	1.23	1.60
"	"	0 - 16	22.97	12.53	1.23	1.54
		16 - 32	24.81	15.04	1.22	1.43
		32 - 48	25.20	15.31	1.22	1.45

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			EXCHEQUER			
Stony Loam	Placer	0 - 12	19.0	---	1.4	2.8
Loam	"	0 - 12	19.7	---	1.4	2.9
			FARWELL			
Sandy Loam	Butte	0 - 12	25.04	12.73	1.22	1.80
"	"	0 - 12	24.22	12.16	1.22	1.77
"	"	0 - 12	24.96	---	---	---
			FERNDALE			
Sandy Loam	Humboldt	0 - 36	11.39	5.10	(1.33)	1.00
Fine Sandy Loam	"	0 - 18	24.48	13.63	1.22	1.59
"	"	0 - 18	22.78	12.16	1.23	1.57
Silt Loam	"	0 - 36	28.26	11.47	(1.20)	2.42
"	"	0 - 18	25.51	15.97	1.22	1.40
			FLOURNOY			
Clay Loam	Glenn	0 - 10	24.22	11.94	1.22	1.80
		10 - 26	32.19	16.56	1.18	2.21
		26 - 42	30.92	15.95	1.19	2.11
		42 - 60	29.96	14.27	1.19	2.24
			FORGEUS			
Clay	Glenn	0 - 8	31.1	15.0	1.7	2.30
		8 - 25	29.3	14.6	1.8	2.12
		25 - 35	31.5	14.9	1.9	2.37
			FORWARD			
Sandy Loam	Tehama	0 - 1	17.6	6.1	1.1	1.52
		1 - 7	15.4	4.5	1.2	1.57
		7 - 15	13.8	4.1	1.3	1.51
		15 - 24	12.1	3.7	1.3	1.31
		24+	13.2	---	---	---

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			FORWARD VARIENT			
Sandy	Tehama	0 - 2	22.9			
Loam		2 - 10	19.3			
Loam		10 - 22	18.3			
Sandy Clay Loam		22 - 36	18.6			
		36 - 56	17.9			
			FOSTER			
Fine	Kings	---	6.22	2.7	1.42	0.60
Sandy Loam			9.34	3.7	1.37	0.93
"	San Diego	---	9.62	---	1.36	---
			9.73	---	1.35	---
"	Tulare	0 - 12	13.7	6.3	1.30	1.15
		12 - 24	12.4	5.7	1.32	1.06
		24 - 36	11.4	5.4	1.33	0.96
		36 - 48	11.7	5.4	1.32	1.00
		48 - 60	15.3	6.9	1.30	1.31
"	"	0 - 36	8.1	3.02	(63.8#)	0.62
		36 - 72	13.7	4.28	(65.5#)	1.19
Loam	Fresno	0 - 36	13.4	5.05	(94.5)	1.51
		36 - 72	11.9	4.56	(93.0)	1.31
"	Tulare	0 - 12	17.9	7.82	1.27	1.54
		12 - 24	14.9	6.12	1.30	1.37
		24 - 36	11.3	5.05	1.33	1.00
		36 - 48	10.7	4.76	1.34	0.96
		48 - 60	9.4	4.10	1.36	0.86
		60 - 72	11.6	5.10	1.33	1.04
		72 - 84	14.2	5.83	1.30	1.31
		84 - 96	13.6	5.79	1.31	1.23
		96 -108	13.8	5.07	1.30	1.36
		108 -120	10.8	4.74	1.34	0.97
			FRESNO			
Sand	Stanislaus	0 - 12	10.17	2.79	1.34	1.19
Sandy	"	0 - 36	10.6			
Loam		36 - 72	18.9			
"	"	0 - 12	8.26			
		12 - 24	7.81			
		24 - 36	8.01			
		36 - 48	8.36			

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
		FRESNO (continued)				
Sandy Loam	Stanislaus	0 - 12	6.12			
		12 - 24	5.18			
		24 - 36	5.14			
		36 - 48	5.12			
"	"	0 - 12	9.76			
		12 - 24	9.16			
		24 - 36	9.31			
		36 - 48	10.35			
"	"	0 - 12	8.31			
		12 - 24	7.11			
		24 - 36	7.18			
		36 - 48	7.15			
"	"	0 - 12	10.4	3.2	1.34	1.16
		12 - 24	10.3	3.3	1.34	1.13
		24 - 36	10.7	3.4	1.34	1.17
		36 - 48	12.4	3.5	1.32	1.41
		48 - 60	13.9	3.5	1.30	1.62
"	Fresno	0 - 12	9.20			
		12 - 24	7.84			
		24 - 36	7.82			
		36 - 48	8.09			
"	"	0 - 12	8.11			
		12 - 24	9.08			
		24 - 36	8.16			
		36 - 48	7.90			
"	"	0 - 12	8.08			
		12 - 24	8.36			
		24 - 36	9.20			
		36 - 42	7.60			
"	"	0 - 12	7.49			
		12 - 24	8.04			
		24 - 36	8.83			
		36 - 42	7.60			
"	"	0 - 12	7.55			
		12 - 24	7.50			
Fine Sandy Loam	Stanislaus	0 - 12	9.28	2.68	1.36	1.08
		12 - 24	8.28	2.60	1.38	0.94
		24 - 36	8.25	2.73	1.38	0.91
		36 - 48	8.22	2.71	1.38	0.91
		48 - 60	8.62	3.00	1.37	0.92

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			FRESNO (continued)			
Fine Sandy Loam	Stanislaus	¼ - 5	13.2	---	(1.8)	2.24
		5 - 10	9.8	---	(1.9)	3.21
		10 - 18	11.2	---	(1.8)	3.30
		18 - 29	15.4	---	(1.7)	4.18
		29 - 38	16.7	---	(1.7)	3.98
		38 - 40	11.1	---	(1.7)	2.84
		?	15.0	---	(1.8)	3.93
Loamy Fine Sand	"	0 - 36	7.1	2.45	1.40	0.78
		36 - 72	23.4	7.21	1.23	2.39
Loam	"	0 - 36	15.8	5.91	1.29	1.53
		36 - 72	18.3	7.21	1.26	1.68
Clay Loam	San Joaquin	0 - 6	28.4	13.13°	1.20	2.08
"	Fresno	0 - 36	37.0	13.78	1.17	3.26
		36 - 72	15.3	6.34	1.29	1.39
Clay	"	0 - 36	18.9	---	---	---
		36 - 72	---	12.80	---	---
			GARNETT			
Clay	Glenn	0 - 1	28.1	17.6	1.20	1.51
		1 - 11	28.3	17.8	1.20	1.51
		11 - 22	26.7	17.4	1.21	1.35
		22 - 31	26.9	16.6	1.21	1.50
			GENEVERA			
Clay	Glenn	0 - 9	31.6	---	(1.8)	---
		9 - 33	31.6	---	(1.9)	---
		33 - 45	30.8	---	(1.9)	---
		45 - 60	28.8	---	(1.7)	---
			GILA			
Very Fine Sand	Riverside	0 - 12	7.85	2.62	1.38	0.87
			GLENHAVEN			
Fine Gravelly Loam	Lake	0 - 8	23.1	---	1.23	1.36
		8 - 18	17.6	---	1.27	0.91
		18 - 29	17.8	---	1.27	0.81
		29 - 45	18.6	---	1.26	0.95
		45 - 51	19.0	---	1.26	0.85

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			GLENVIEW			
Slightly Gravelly Loam	Lake	0 - 3	26.1	11.6	1.21	2.11
		3 - 15	25.0	11.4	1.22	1.99
		15 - 27	29.6	21.3	1.20	1.43
		27 - 43	25.6	20.6	1.21	1.48
			GLOYD			
Gravelly Loam	Lake	0 - 3	29.0	12.7	1.20	2.35
		3 - 13	27.1	13.0	1.21	2.05
		13 - 21	25.6	13.5	1.21	1.76
		21 - 29	24.0	13.3	1.22	1.57
			GOLD RIDGE			
Fine Sandy Loam	Sonoma	0 - 12	10.0	3.3	1.35	1.09
		12 - 24	10.0	3.0	1.35	1.13
		24 - 36	10.3	2.9	1.35	1.20
		36 - 48	16.2	8.9	1.29	1.13
		48 - 60	22.2	10.7	1.24	1.71
		60 - 72	20.3	10.2	1.25	1.52
			GOULDING			
Very Gravelly Loam	Glenn	0 - 4	21.3	---	1.24	1.72
		4 - 16	21.1	---	1.24	1.61
			GRANGEVILLE			
Very Fine Sandy Loam	Stanislaus	0 - 7	22.3	6.9	(1.3)	2.40
		7 - 20	21.1	7.6	(1.3)	2.11
		20 - 40	18.6	6.0	(1.2)	1.81
		40 - 60	18.0	---	1.27	1.75
			GREENFIELD			
Sand	Monterey	0 - 16	8.90	4.13	1.37	0.78
Gravelly Loamy Sand	Fresno	0 - 36	6.8	2.16	(91.4#)	0.87
		36 - 72	6.8	2.75	(101.6#)	0.79
Gravelly Loamy Fine Sand	"	0 - 36	7.1	2.24	1.40	0.82
		36 - 72	7.2	2.69	1.40	0.76

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
		GREENFIELD (continued)				
Loamy Sand	Fresno	0 - 36	5.4	1.83	(86.4#)	0.59
		36 - 72	4.2	1.80	(91.4#)	0.45
Loamy Fine Sand	"	0 - 36	9.6	3.08	1.36	1.06
		36 - 72	12.3	3.76	1.32	1.35
Gravelly Sandy Loam	"	0 - 36	6.7	2.41	1.40	0.72
		36 - 72	5.7	2.22	1.42	0.59
Gravelly Fine Sandy Loam	"	0 - 36	8.0	2.36	1.38	0.93
		36 - 72	4.6	1.47	1.45	0.54
Coarse Sandy Loam	Monterey	0 - 15	13.15	5.61	1.31	1.19
"	"	0 - 12	8.04	3.17	1.38	0.81
		12 - 24	8.35	3.24	1.37	0.84
		24 - 36	10.03	4.26	1.35	0.93
		36 - 48	9.22	4.51	1.37	0.77
"	"	0 - 12	8.29	3.07	1.38	0.86
		12 - 24	7.43	3.05	1.39	0.73
		24 - 36	7.50	3.12	1.39	0.73
		36 - 48	6.05	3.22	1.42	0.48
"	"	0 - 12	8.98	3.87	1.37	0.84
		12 - 24	8.57	3.56	1.37	0.82
		24 - 36	11.05	4.83	1.34	1.00
		36 - 48	10.04	4.72	1.35	0.86
"	"	0 - 12	8.85	3.64	1.37	0.86
		12 - 24	8.94	3.81	1.37	0.84
		24 - 36	9.18	4.70	1.37	0.74
		36 - 48	7.50	3.53	1.39	0.66
"	"	0 - 12	9.61	3.48	1.36	1.00
		12 - 24	9.01	4.23	1.37	0.79
		24 - 36	11.10	5.73	1.34	0.86
		36 - 48	9.97	5.17	1.35	0.78
Sandy Loam	Stanislaus	0 - 18	5.4	3.2	1.43	0.38
		18 - 36	7.0	3.8	1.40	0.54
"	"	0 - 9	12.3	---	(1.6)	1.71
		9 - 21	12.0	---	(1.6)	1.56
		21 - 42	13.1	---	(1.7)	1.77
		42 - 52	10.5	---	(1.7)	1.39
		52 - 70	8.5	---	(1.7)	1.10

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
Fine Sandy Loam	Monterey	0 - 36	6.8	2.39	(82.8#)	0.70
		36 - 72	11.3	4.00	(80.5#)	1.13
"	Stanislaus	0 - 7	12.4	---	(1.8)	1.62
		7 - 15	12.7	---	(1.7)	1.55
		15 - 24	13.1	---	(1.5)	1.40
		24 - 32	13.5	---	(1.7)	1.96
		32 - 34	14.8	---	---	---
			GRIDLEY			
---	Yuba	0 - 12	24.85	10.04	1.22	2.17
		12 - 24	29.00	17.44	1.20	1.66
		24 - 36	33.62	18.53	1.18	2.29
"	"	0 - 1	21.53	9.26	1.24	1.83
		1 - 2	23.04	11.74	1.23	1.67
Loam	"	0 - 12	22.83	11.25		
		12 - 24	22.73	12.24		
		24 - 36	24.36	14.43		
		36 - 48	24.93	14.23		
"	"	0 - 12	17.36	6.51		
		12 - 24	18.99	6.29		
		24 - 36	14.43	5.72		
		36 - 48	12.65	5.34		
			GUENOC			
Loam	Tehama	0 - 2	30.1			
		2 - 16	27.3			
		16 - 30	27.9			
			GUENOR			
Clay Loam	Lake	0 - 5	35.2	14.6	1.17	2.54
		5 - 11	27.1	15.7	1.21	1.50
		11 - 28	24.4	16.8	1.22	1.11
		28 - 36	22.2	17.4	1.24	0.71
			HAIGH			
Fine Sandy Loam	Glenn	0 - 8	12.5	4.5	1.32	1.32
		8 - 15	13.8	5.5	1.30	1.29
		15 - 27	16.5	7.6	1.28	1.37
		27 - 38	15.2	6.8	1.30	1.31
		38 - 60	13.8	6.0	1.30	1.22

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			HAMBRIGHT			
Stony Loam	Glenn	0 - 6	23.9	---	1.22	2.02
		6 - 16	23.9	---	1.22	1.84
			HANFORD			
Sand	Monterey	0 - 12	13.01	6.02	1.31	1.20
		12 - 24	13.29	6.71	1.31	1.03
"	"	0 - 16	10.27	3.90	1.35	1.03
"	Los Angeles	0 - 24	7.07+	3.94	1.40	0.44 !
		24 - 48	6.01+	3.27	1.42	0.36 !
		48 - 72	3.67+	2.77	1.47	0.13 !
"	Fresno	0 - 36	5.8	2.11	(68.0#)	0.48
		36 - 72	4.6	1.91	(71.2#)	0.37
Gravelly Sand	"	0 - 36	7.1	2.64	(66.7#)	0.57
		36 - 72	6.4	2.71	(71.9#)	0.51
"	"	0 - 36	7.2	2.46	1.40	0.80
		36 - 72	7.0	3.36	1.40	0.61
Gravelly Fine Sand	"	0 - 36	7.4	2.31	1.39	0.85
		36 - 72	2.3	0.88	1.60	0.27
Gravelly Loamy Sand	"	0 - 36	5.2	2.30	(69.6#)	0.39
		36 - 72	3.2	1.54	(81.9#)	0.26
Gravelly Loamy Fine Sand	"	0 - 36	7.0	2.33	(77.0#)	0.69
		36 - 72	6.7	2.62	(78.9#)	0.62
Loamy Sand	"	0 - 36	14.9	5.18	(84.4)	1.57
		36 - 72	5.9	2.55	(77.5)	0.58
Loamy Fine Sand	"	0 - 36	7.5	2.81	(64.6#)	0.58
		36 - 72	6.9	3.30	(83.1#)	0.57
"	Sacramento	0 - 12	18.6	7.3	1.42	1.9
		12 - 24	20.2	8.6	1.42	2.0
		24 - 36	20.0	9.0	1.42	1.9
		36 - 48	20.7	9.8	1.42	1.9
		48 - 60	24.0	11.2	1.42	2.2
		60 - 72	23.4	11.0	1.42	2.1
Loamy Sand	Fresno	0 - 36	16.2	4.22	1.29	1.85
		36 - 72	15.1	5.36	1.30	1.52

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
		HANFORD (continued)				
Loamy Fine Sand	Sacramento	0 - 12	20.0	7.4	1.42	2.1
		12 - 24	18.8	8.3	1.42	1.8
		24 - 36	22.5	9.0	1.42	2.3
		36 - 48	22.5	9.8	1.42	2.2
		48 - 60	25.1	11.5	1.42	1.4
		60 - 72	23.9	11.5	1.42	2.1
"	Fresno	0 - 36	8.0	2.74	(75.3#)	0.76
		36 - 72	7.9	2.86	(79.1#)	0.76
Loamy Very Fine Sand	"	0 - 36	11.6	3.76	1.33	1.25
		36 - 72	11.2	4.33	1.34	1.10
Fine Sand	Monterey	0 - 16	20.01	8.80	1.25	1.68
"	Fresno	0 - 36	6.7	2.51	(72.9#)	0.59
		36 - 72	6.4	2.99	(80.9#)	0.53
Stony Sandy Loam	Los Angeles	0 - 12	7.85+	4.34	1.38	0.38 !
		12 - 24	2.96+	2.21	1.50	0.10 !
		24 - 36	7.76+	4.17	1.38	0.49 !
		36 - 48	3.24+	2.37	1.50	0.11 !
"	"	0 - 9	10.28	5.75	1.35	0.55 !
		9 - 18	7.24	3.50	1.40	0.44 !
		18 - 27	7.35	3.66	1.39	0.35 !
Gravelly Sandy Loam	"	0 - 18	10.13	4.52	1.35	0.64 !
		18 - 36	8.77	4.16	1.37	0.53 !
"	"	0 - 12	12.02	6.21	1.32	0.77 !
		12 - 24	14.61	7.34	1.30	0.98 !
		24 - 42	13.77	7.15	1.30	0.95 !
"	"	0 - 18	9.20+	5.42	1.37	0.51 !
		18 - 36	10.15+	4.70	1.35	0.70 !
		36 - 60	10.51+	5.45	1.34	0.63 !
"	"	0 - 18	6.23+	3.27	1.41	0.36 !
		18 - 30	3.82+	2.32	1.47	0.13 !
"	"	0 - 18	8.63+	3.96	1.37	0.61 !
		18 - 36	7.48+	3.86	1.39	0.52 !
		36 - 60	6.68+	3.64	1.40	0.51
"	Fresno	0 - 36	5.9	2.70	(80.5#)	0.50
		36 - 72	4.8	2.57	1.45	0.39

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
		HANFORD (continued)				
Gravelly Fine Sandy Loam	Fresno	0 - 36	7.8	2.39	(82.5#)	0.85
		36 - 72	7.6	2.47	(82.7#)	0.81
Sandy Loam	Stanislaus	0 - 12	7.80	2.82	1.38	0.82
		12 - 24	6.64	2.45	1.41	0.71
		24 - 36	6.10	2.30	1.42	0.65
		36 - 48	6.01	2.38	1.42	0.62
"	"	0 - 12	10.34	4.50	1.34	0.94
		12 - 24	8.30	3.61	1.38	0.78
		24 - 36	7.90	3.91	1.30	0.66
"	"	0 - 12	6.55	3.46	1.38	0.73
		12 - 24	6.16	3.60	1.40	0.60
		24 - 36	6.65	4.38	1.39	0.50
"	"	0 - 12	7.63	3.50	1.37	0.84
		12 - 24	6.13	3.25	1.39	0.69
		24 - 36	6.31	4.41	1.40	0.46
"	Fresno	0 - 36	11.3	3.50	(79.5#)	1.19
		36 - 72	11.7	4.01	(84.0#)	1.23
"	"	0 - 6	11.9	5.8	1.32	0.97
"	Kern	0 - 12	16.0			
		12 - 24	10.8			
		24 - 36	12.4			
"	"	0 - 12	16.6			
		12 - 24	24.2			
		24 - 36	21.9			
"	"	0 - 12	16.5			
		12 - 24	15.3			
		24 - 36	20.4			
"	San Joaquin	0 - 12	7.14	3.36	1.40	0.64
		12 - 24	6.73	3.03	1.40	0.62
		24 - 36	6.59	2.80	1.41	0.64
		36 - 48	6.32	2.71	1.41	0.61
		48 - 60	7.00	2.69	1.40	0.72
		60 - 72	8.41	2.89	1.37	0.91
		72 -108	5.96	2.86	1.42	0.53
		108 -144	7.25	3.22	1.39	0.67

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
		HANFORD (continued)				
Sandy Loam	San Joaquin	0 - 12	7.12	3.36	(1.55)	0.70
		12 - 24	6.73	3.03	(1.53)	0.68
		24 - 36	6.59	2.80	(1.62)	0.74
		36 - 48	6.32	2.71	(1.67)	0.72
		48 - 60	7.00	2.69	(1.66)	0.86
		60 - 72	8.41	2.89	(1.67)	1.10
		72 -108	5.96	2.86	---	---
		108 -144	7.25	3.22	---	---
"	"	0 - 36	9.81	4.14	1.35	0.92
		36 - 72	11.41	5.03	1.33	1.02
"	"	0 - 36	12.23	4.87	1.32	1.17
		36 - 84	11.15	5.03	1.34	0.98
"	"	0 - 36	9.97	3.77	1.35	1.00
		36 - 72	10.07	3.48	1.35	1.07
"	"	0 - 36	10.09	3.58	1.35	1.05
		36 - 72	11.80	3.77	1.32	1.27
"	"	0 - 36	6.61	3.21	1.41	0.58
		36 - 60	6.84	3.45	1.40	0.57
		72 -108	3.07	2.37	1.50	0.13
"	"	0 - 36	7.77	3.55	1.38	0.70
		36 - 72	8.27	3.99	1.38	0.71
"	"	0 - 36	2.42	2.88	1.50	---
		36 - 72	7.49	3.20	1.39	0.72
		72 -108	4.00	2.34	1.47	0.29
"	Tulare	0 - 12	12.0	4.5	(1.65)	1.49
		12 - 24	10.7	4.0	(1.50)	1.21
		24 - 36	9.1	3.4	(1.55)	1.06
		36 - 48	7.4	3.1	(1.57)	0.81
		48 - 60	6.5	3.3	(1.55)	0.60
		60 - 72	7.2	3.6	(1.58)	0.68
" (shallow phase)	Fresno	0 - 36	21.9	9.32	1.24	1.87
		36 - 72	17.5	8.02	1.27	1.44
"	"	0 - 36	5.4	1.86	1.43	0.61
		36 - 72	23.5	6.30	1.23	2.54
Fine Sandy Loam	Los Angeles	0 - 15	12.70	4.70	1.31	1.26
		15 - 30	12.19	4.66	1.32	1.19
		30 - 60	11.92	4.81	1.32	1.13

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			HANFORD (continued)			
Fine Sandy Loam	Los Angeles	0 - 9	10.86	4.83	1.34	0.89 !
		9 - 24	14.20	5.72	1.30	1.32
		24 - 60	13.13	5.54	1.31	1.17
"	"	0 - 18	15.23	6.84	1.30	1.15 !
		18 - 36	12.97	6.49	1.31	0.83 !
		36 - 60	11.40	5.46	1.33	0.80 !
"	Fresno	0 - 36	17.5	5.09	1.27	1.89
		36 - 72	18.1	6.21	1.27	1.81
"	"	0 - 36	9.5	3.43	(75.2#)	0.88
		36 - 72	8.6	3.64	(75.0#)	0.71
"	Tulare	0 - 12	12.74	3.95	1.31	1.38
		12 - 24	9.36	3.60	1.36	0.94
Very Fine Sandy Loam	Monterey	0 - 16	17.99	7.50	1.27	1.60
"	Fresno	0 - 36	5.6	1.99	1.43	0.62
		36 - 72	2.9	1.34	1.50	0.28
Loam	Los Angeles	0 - 18	16.52	7.97	1.28	1.31
		18 - 36	16.33	8.67	1.29	1.19
		36 - 60	17.62	9.18	1.27	1.29
"	"	0 - 18	15.59	8.46	1.29	0.96 !
		18 - 36	17.30	9.92	1.27	1.12
		36 - 60	15.77	8.95	1.29	1.06 !
			HENNEKE			
Stony Clay Loam	Glenn	0 - 3	34.9	---	(1.2)	2.25
		3 - 7	36.6	---	(1.2)	1.96
		7 - 22	45.5	---	(1.3)	2.23
Gravelly Clay Loam	Lake	0 - 4	36.9	24.1	1.17	1.80
		4 - 14	55.2	39.4	1.0	1.92
		14 - 22	67.8	52.1	1.0	1.88
"	Mendocino	0 - 5	49.2	---	1.0	1.66
		5 - 10	59.2	---	1.0	1.28
			HERNDON			
Sandy Loam	Fresno	0 - 36	6.0	2.48	(80.3#)	0.53
		36 - 72	5.6	2.61	(90.9#)	0.52

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			HESPERIA			
Loamy Sand	Los Angeles	0 - 30	6.39+	3.30	1.42	0.46 !
		30 - 60	5.90+	3.02	1.42	0.45 !
"	Fresno	0 - 36	5.8	2.31	(75.3#)	0.50
		36 - 72	3.8	1.89	(87.0)	0.32
"	"	0 - 36	5.7	2.10	(78.7#)	0.55
		36 - 72	9.1	3.28	(67.3#)	0.74
"	"	0 - 36	5.7	2.10	(78.7)	0.55
		36 - 72	9.1	3.28	(67.3)	0.75
Fine Sand	"	0 - 36	8.5	2.92	1.37	0.92
		36 - 72	8.0	3.17	1.38	0.80
"	"	0 - 36	6.8	2.22	(73.0#)	0.64
		36 - 72	5.9	2.67	(75.0#)	0.46
"	"	0 - 36	8.1	3.02	(68.3#)	0.66
		36 - 72	13.7	4.28	(71.8#)	1.16
Loamy Fine Sand	Kern	0 - 12	7.0	4.3	1.40	0.45
		12 - 24	9.7	5.5	1.35	0.68
		24 - 36	11.0	6.3	1.34	0.76
		36 - 48	10.4	5.2	1.34	0.84
"	"	0 - 12	8.2	4.8	1.38	0.56
		12 - 24	10.1	5.9	1.35	0.68
		24 - 36	10.1	5.4	1.35	0.76
		36 - 48	8.9	5.1	1.37	0.62
"	"	0 - 12	9.7	5.1	1.35	1.49
		12 - 24	9.8	5.1	1.35	0.76
		24 - 36	10.2	5.5	1.35	0.76
		36 - 48	9.6	5.0	1.35	0.75
"	"	0 - 12	8.1	4.8	1.38	0.55
		12 - 24	13.8	7.0	1.30	1.06
		24 - 36	11.7	6.1	1.32	0.89
		36 - 48	9.1	5.0	1.37	0.67
"	"	0 - 12	8.9	4.9	1.37	0.66
		12 - 24	9.9	5.6	1.35	0.70
		24 - 36	11.2	5.7	1.34	0.88
		36 - 48	9.6	5.3	1.35	0.70
"	"	0 - 12	9.7	5.2	1.35	0.73
		12 - 24	10.2	6.3	1.35	0.63
		24 - 36	10.4	6.0	1.34	0.71
		36 - 48	10.8	5.9	1.34	0.79

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
		HESPERIA (continued)				
Loamy Fine Sand	Kern	0 - 12	11.8	5.77	1.32	0.96
		12 - 24	11.9	6.17	1.32	0.91
		24 - 36	14.7	6.64	1.30	1.28
		36 - 48	12.8	6.19	1.31	1.04
		48 - 60	14.0	6.21	1.30	1.22
		60 - 72	13.9	6.52	1.30	1.15
		72 - 84	12.4	5.95	1.32	1.02
		84 - 96	9.0	4.40	1.37	0.76
"	"	0 - 12	9.9	5.28	1.35	0.75
		12 - 24	14.3	7.66	1.30	1.03
		24 - 36	15.4	7.59	1.29	1.21
		36 - 48	16.4	8.30	1.28	1.24
		48 - 60	19.7	8.40	1.25	1.70
		60 - 72	21.0	8.92	1.24	1.80
		72 - 84	19.4	8.55	1.26	1.64
		84 - 96	18.5	7.97	1.26	1.59
Gravelly Sandy Loam (shallow phase)	Fresno	0 - 36	15.9	5.79	(79.2#)	1.53
		36 - 72	15.0	5.80	(84.5#)	1.50
Gravelly Fine Sandy Loam	"	0 - 36	14.0	5.12	(82.0#)	1.40
		36 - 72	4.4	2.12	(89.4#)	0.40
" (shallow phase)	"	0 - 36	11.9	4.17	(86.5#)	1.29
		36 - 72	13.2	3.87	(76.4#)	1.34
Sandy Loam	"	0 - 36	18.3	9.29	1.26	1.21
		36 - 72	21.9	---	---	---
"	"	0 - 36	5.5	1.93	1.43	0.61
		36 - 72	4.6	1.86	1.46	0.48
"	"	0 - 36	18.3	9.29	1.26	1.36
		36 - 72	21.9	---	---	---
"	"	0 - 36	12.6	4.78	1.32	1.24
		36 - 72	16.7	7.94	1.28	1.35
"	Kern	0 - 12	10.9	5.48	1.34	0.87
		12 - 24	9.9	5.19	1.35	0.76
		24 - 36	16.4	8.40	1.28	1.23
		36 - 48	16.0	6.62	1.29	1.45
		48 - 60	12.4	5.20	1.32	1.14
		60 - 72	11.1	4.76	1.34	1.02
		72 - 84	6.6	3.39	1.40	0.54
		84 - 96	8.3	3.86	1.38	0.74

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
		HESPERIA (continued)				
Sandy Loam	Kern	0 - 12	8.3	4.05	1.37	0.70
		12 - 24	5.9	3.55	1.42	0.40
		24 - 36	7.3	3.74	1.39	0.59
		36 - 48	4.7	2.80	1.45	0.33
		48 - 60	6.9	3.42	1.40	0.58
		60 - 72	6.2	3.60	1.42	0.44
		72 - 84	6.0	3.08	1.42	0.50
		84 - 96	3.4	2.22	1.49	0.21
" (shallow phase)	Fresno	0 - 36	5.3	1.70	(79.3#)	0.54
		36 - 72	5.9	2.24	(83.4#)	0.58
Fine Sandy Loam	"	0 - 36	9.5	3.45	(71.8#)	0.83
		36 - 72	7.8	3.52	(80.3#)	0.65
" (shallow phase)	"	0 - 36	13.2	---	(80.9)	---
		36 - 72	---	4.17	(83.9)	---
Very Fine Sandy Loam	"	0 - 36	15.2	4.64	(60.5#)	1.27
		36 - 72	13.6	4.76	(65.7#)	1.12
Loam	"	0 - 36	20.1	6.33	(83.4#)	2.20
		36 - 72	5.0	1.94	(81.8#)	0.48
"	"	0 - 36	21.5			
		36 - 72	33.7			
" (shallow phase)	"	0 - 36	15.6	5.36	(94.7#)	1.86
		36 - 72	14.4	5.14	1.30	1.44
		HESSE				
Gravelly Loam	Lake	0 - 3	28.2	14.4	1.20	2.16
		3 - 18	23.3	13.3	1.23	1.42
		18 - 22	24.8	15.5	1.22	1.36
		HIDEAWAY				
Stony Loam	Stanislaus	1 - 11	17.19	5.73	1.28	1.76
		HILLGATE				
Very Fine Sandy Loam	Glenn	0 - 12	20.0	5.5	1.25	2.18
		12 - 33	30.5	13.5	1.19	2.42
		33 - 40	25.3	12.9	1.21	1.80
		40 - 60	23.4	10.4	1.23	1.92

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			HILLGATE (continued)			
Loam	Tehama	0 - 8	16.59	7.04	1.28	1.33
		12 - 24	30.52	16.80	1.19	1.96
			HILMAR			
Loamy Sand	Stanislaus	0 - 7	3.6	---	1.50	0.31
		7 - 14	4.2	---	1.47	0.50
		14 - 21	4.2	---	1.47	0.85
		21 - 29	8.4	---	1.37	1.80
		29 - 66	16.3	---	1.28	---
			HOHMANN			
Gravelly Loam	Glenn	0 - 4	27.5	---	1.20	2.32
		4 - 12	25.6	---	1.21	2.09
		12 - 29	23.9	---	1.22	1.60
			HOLLAND			
Sandy Loam	Placer	0 - 12	11.43	3.78	1.33	1.22
		12 - 24	10.69	4.01	1.34	1.08
"	"	---	13.90	4.31	1.30	1.50
"	"	---	6.26	3.43	1.42	0.48
"	"	---	9.03	4.20	1.37	0.79
"	"	---	10.64	4.15	1.34	1.04
"	"	---	13.36	4.58	1.31	1.38
"	"	0 - 12	14.59	5.05	1.30	1.49
		12 - 24	14.95	6.44	1.30	1.33
"	"	---	13.79	4.30	1.30	1.48
"	"	---	13.53	4.36	1.31	1.44
"	"	---	10.56	3.54	1.34	1.13
"	"	---	12.68	4.85	1.31	1.23
"	"	0 - 12	18.09			
		12 - 24	17.00			
		24 - 36	18.72			
		36 - 48	19.16			

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			HOLLAND (continued)			
Sandy Loam	Tulare	0 - 6	8.94	2.56	1.37	1.05
Loam	Fresno	0 - 7	24.3	---	(1.1)	1.53
		7 - 24	19.6	---	(1.4)	1.51
		24 - 60	18.5	---	(1.6)	1.29
		60+	20.1	---	(1.6)	1.63
			HOLTVILLE			
Silty Clay Loam	Riverside	0 - 12	22.79	14.26	1.23	1.26
"	Imperial	0 - 12	22.68	12.74	1.23	1.47
		12 - 24	26.17	15.49	1.21	1.55
		24 - 36	23.14	15.09	1.23	1.19
		36 - 48	16.62	8.13	1.28	1.30
Clay Loam	"	0 - 12	25.09	13.83	1.22	1.65
		12 - 24	28.30	17.08	1.20	1.62
		24 - 36	31.22	18.97	1.19	1.75
		36 - 48	17.37	9.46	1.27	1.21
"	"	0 - 12	25.76	15.04	1.21	1.56
		12 - 24	24.94	17.38	1.22	1.11
		24 - 36	19.45	7.85°	1.26	1.75
		36 - 48	30.76	16.61	1.19	2.02
Clay	Riverside	0 - 12	33.09	16.78	1.18	2.31
		12 - 24	31.35	16.60	1.19	2.11
			HONCUT			
Loam	Yuba	0 - 12	17.12	6.33	1.28	1.66
		12 - 24	16.67	6.04	1.28	1.63
		24 - 36	14.96	6.07	1.30	1.39
		36 - 48	15.46	7.22	1.29	1.28
		48 - 60	14.32	6.81	1.30	1.17
"	Stanislaus	0 - 10	20.8	9.2	(1.5)	2.09
		10 - 26	19.7	8.5	(1.5)	2.01
		26 - 41	18.3	8.3	(1.5)	1.80
		41 - 60	16.6	---	(1.4)	1.33
Clay Loam	Placer	0 - 12	19.22	8.84	1.26	1.57
"	"	0 - 12	18.04	7.03	1.27	1.68

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			HOPETON			
Clay Loam	Stanislaus	0 - 11	20.0	7.9	(1.8)	2.61
		11 - 20	35.7	14.1	(1.9)	4.92
		20 - 29	31.7	11.6	(1.9)	4.58
		29 - 38	33.8	11.3	(1.9)	5.13
			HORNITOS			
Gravelly Fine Sandy Loam	Stanislaus	0 - 7	12.4	8.53	1.32	0.61
		7 - 9	21.3	12.07	1.24	1.37
			HUGO			
Stony Loam	Mendocino	0 - 7	32.5	---	(1.9)	---
		7 - 27	21.9	---	(2.0)	---
Fine Sandy Loam	Solano	0 - 16	15.25	8.03	1.29	1.12
		16 - 32	25.08	10.56	1.21	2.11
		32 - 48	25.47	12.95	1.21	1.82
Clay Loam	"	0 - 16	25.56	15.72	1.21	1.43
		16 - 32	27.31	15.82	1.20	1.65
		32 - 48	26.06	14.66	1.21	1.66
			HULLS			
Gravelly Loam	Glenn	0 - 8	20.2	4.5	1.5	2.83
		8 - 22	17.0	5.3	1.5	2.11
"	"	0 - 6	27.0	---	(1.5)	---
		6 - 18	26.4	---	(1.5)	---
		18 - 35	23.5	---	---	---
			IMPERIAL			
Very Fine Sandy Loam	Riverside	0 - 12	21.71	9.12	1.24	1.87
Silty Clay Loam	"	0 - 12	31.49	16.89	1.19	2.08
		12 - 24	31.06	16.59	1.19	2.07
			INDIO			
---	Riverside	---	21.80	14.87	1.24	1.06
"	"	---	21.85	8.25	1.24	2.02

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			INKS			
Gravelly Loam	Tehama	0 - 6	23.0			
		6 - 10	24.3			
		10 - 13	26.5			
Loam	"	0 - 6	22.1			
		6 - 13	23.3			
		13 - 22	30.1			
			INSKIP			
Gravelly Silt Loam	Tehama	0 - 8	45.7			
"	"	0 - 8	46.0			
Very Rocky Silt Loam	"	0 - 3	40.1			
		3 - 10	40.2			
		10 - 33	43.0			
			IRON MOUNTAIN			
Fine Sandy Loam	Tehama	0 - 5	22.9			
		5 - 9	22.8			
			JACINTO			
Fine Sandy Loam	Glenn	0 - 10	10.0	2.7	(1.7)	1.18
		10 - 21	11.8	5.1	(1.6)	1.06
		21 - 38	14.1	6.3	(1.7)	1.22
			JEFFCOAT			
Rocky Loam	Tehama	0 - 1	27.0			
		1 - 9	24.6			
		9 - 12	26.0			
			JIGGS			
Sandy Loam	Tehama	0 - 2	26.7	8.2	1.0	2.22
		2 - 5	17.8	5.5	1.3	1.92
		5 - 10	14.4	4.0	1.3	1.62
		10 - 20	13.8	5.1	1.4	1.46

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			JOSEPHINE			
Gravelly Loam	Glenn	0 - 4	24.7	---	(1.6)	3.13
		4 - 11	24.7	---	(1.6)	2.69
		11 - 25	27.8	---	(1.6)	2.02
		25 - 46	27.4	---	(1.6)	1.88
"	Lake	0 - 4	38.8	12.6	1.16	2.27
		4 - 11	34.0	---	1.18	1.69
		11 - 20	32.0	---	1.18	1.16
		20 - 44	35.1	---	1.17	1.47
		44 - 50	34.8	---	1.17	1.73
Loam	Mendocino	0 - 10	22.0	7.2	(1.5)	2.66
		10 - 24	20.4	8.4	(1.5)	2.16
		24 - 40	21.2	9.8	(1.6)	2.19
		40 - 50	25.4	---	1.5	2.00
			KEYES			
Cobbley Clay Loam	Stanislaus	0 - 3	21.0	8.27	1.24	1.89
		3 - 6	19.8	8.89	1.25	1.64
		6 - 12	22.7	10.08	1.23	1.86
		12 - 18	37.7	19.99	1.16	2.47
			KIDD			
Gravelly Sandy Loam	Lake	0 - 4	27.5			
		4 - 12	20.0			
			KIMBALL			
Slightly Gravelly Fine Sandy Loam	Glenn	0 - 16	12.5	---	(1.90)	---
		16 - 27	36.8	---	(2.00)	---
		27 - 33	20.8	---	(1.95)	---
		33 - 60	19.5	---	(2.00)	---
"	"	0 - 12	13.5	4.9	1.31	1.37
		12 - 23	38.9	17.7	1.16	2.95
		23 - 30	27.2	15.6	1.21	1.68
		30 - 36	25.9	15.2	1.21	1.49
Loam	Placer	---	21.87	9.33	1.24	1.87
"	"	---	15.07	7.09	1.30	1.24
"	"	---	22.04	12.48	1.24	1.42
"	"	---	21.27	9.58	1.24	1.74
"	"	---	15.57	7.19	1.29	1.30

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			KONOKTI			
Loam	Lake	0 - 5	31.4	10.9	1.19	2.93
		5 - 15	24.6	8.6	1.22	2.34
		15 - 28	23.3	9.2	1.23	2.08
		28 - 36	20.8	8.8	1.24	1.79
			LAGUNA			
Sand	Santa Cruz	0 - 12	4.35	2.65	1.42	0.27
"	"	0 - 12	5.08	2.44	1.42	0.41
			LANE			
Sandy Loam	Fresno	0 - 36	10.9	3.95	(89.3#)	1.18
		36 - 72	12.4	5.54	(86.1#)	1.13
Fine Sandy Loam	"	0 - 36	10.9	3.41	(77.5)	1.11
		36 - 72	10.9	3.03	(78.5)	1.19
			LANINGER			
Sandy Loam	Tehama	0 - 3/4	30.3	---	(1.6)	1.11
		3/4- 4	11.5	---	(1.6)	1.42
		4 - 9	8.59	---	(1.6)	1.00
		9 - 16	8.95	---	(1.5)	0.93
		16 - 34	8.42	---	(1.5)	0.85
			LAUGHLIN			
Loam	Mendocino	0 - 3	21.0	7.3	(1.4)	2.30
		3 - 11	16.5	5.7	(1.6)	2.07
		11 - 23	14.7	7.4	(1.7)	1.49
			LOCKWOOD			
Gravelly Loam	Kern	0 - 12	30.78	22.80	1.19	1.14
		12 - 24	31.43	23.14	1.19	1.18
		24 - 36	30.96	23.58	1.19	1.05
		36 - 48	32.48	25.23	1.18	1.03
"	"	0 - 12	32.50	23.60	1.18	1.26
		12 - 24	32.50	24.00	1.18	1.20
		24 - 36	32.20	25.03	1.18	1.02
		36 - 48	33.88	26.45	1.18	1.05

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			LOCKWOOD (continued)			
Gravelly Loam	Monterey	0 - 16	28.90	17.02	1.20	1.70
"	"	0 - 8	28.39	20.69	1.20	1.11
		10 - 18	28.83	21.00	1.20	1.13
			LODO			
Fine Shaley Loam	Tehama	0 - 2	17.4	---	(1.5)	1.63
		2 - 6½	16.4	---	(1.5)	1.50
		6½+	17.8	---	1.5	1.48
Gritty Clay Loam	Glenn	0 - 7	19.7	---	(1.8)	1.94
			LOS GATOS			
Gravelly Loam	Glenn	0 - 4	32.3	9.8	(1.2)	3.24
		4 - 20	24.1	7.4	(1.3)	2.60
"	"	0 - 10	20.9	---	(1.9)	---
		10 - 22	20.3	---	(1.8)	---
Loam	Mendocino	0 - 6	26.6	9.6	(1.4)	2.86
		6 - 11	21.2	8.7	(1.7)	2.55
		11 - 18	18.3	8.6	(1.8)	2.10
			LOS OSOS			
Sandy Loam	Lake	0 - 8	25.7	---	1.21	1.97
		8 - 20	25.6	---	1.21	1.60
		20 - 43	27.3	---	1.20	1.18
		43 - 50	26.6	---	1.21	1.26
			LYONSVILLE			
Sandy Loam	Tehama	0 - 2	39.7			
		2 - 5	33.6			
		5 - 18	30.3			
		18 - 30	28.6			
Loam	"	0 - 3	37.8			
		3 - 11	37.7			
Sandy Loam		11 - 20	35.8			
Loam		20 - 28	37.1			

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			MC CARTHY			
Sandy Loam	Tehama	0 - 2	31.9	18.1	1.0	1.66
		2 - 10	31.1	18.2	1.1	1.70
		10 - 17	33.6	18.7	1.1	1.97
"	"	0 - 3	36.5	15.9	1.0	2.47
		3 - 18	29.9	15.9	1.2	2.02
		18 - 30	35.3	19.6	1.2	2.26
			MC CLUSKY			
Sandy Loam	Monterey	0 - 30	6.94	3.06	1.40	0.65
			MADERA			
Sandy Loam	Fresno	0 - 12	9.72	3.22	(1.60)	1.25
		12 - 24	9.38	3.85	(1.60)	1.06
		24 - 36	10.37	5.52	(1.82)	1.06
		36 - 48	9.43	5.04	(1.73)	0.91
		48 - 60	8.33	4.47	(1.83)	0.85
		60 - 72	9.48	4.84	(1.89)	1.05
"	Stanislaus	0 - 9	12.1	3.6	1.32	1.35
		9 - 24	11.5	5.2	1.33	1.01
		24 - 34	13.0	7.6	1.31	0.85
"	Tulare	0 - 12	14.56	3.62	1.30	1.71
		12 - 24	12.28	3.46	1.32	1.40
"	"	0 - 12	12.80	4.02	1.31	1.38
"	"	0 - 12	12.60	2.88	1.32	1.54
		12 - 24	13.98	3.20	1.30	1.68
		24 - 36	11.56	3.36	1.32	1.30
		36 - 48	16.66	7.92	1.28	1.34
		48 - 60	8.48	3.02	1.37	0.90
		60 - 72	7.14	3.02	1.40	0.69
Silt Loam	Mariposa	0 - 12	16.83	6.97	1.28	1.51
Loam	Placer	---	7.73	4.37	1.38	0.56
"	"	---	11.02	3.98	1.34	1.13
"	"	---	11.03	4.79	1.34	1.00
"	"	---	13.15	6.85	1.31	0.99

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			MALTON			
Slightly Gravelly Fine Sandy Loam	Glenn	0 - 11	16.0	4.4	1.29	1.79
		11 - 20	15.9	5.2	1.29	1.65
		20 - 32	16.2	6.6	1.29	1.48
		32 - 46	17.8	9.3	1.27	1.28
		46 - 60	18.7	10.1	1.26	1.30
			MANTON			
Gravelly Loam	Tehama	0 - 8	28.8			
			MARINA			
Sand	Monterey	0 - 15	5.81	2.40	1.42	0.58
			MASTERSON			
Gravelly Loam	Glenn	0 - 4	30.9	8.6	(1.1)	2.94
		4 - 19	26.3	7.4	(1.2)	2.72
		19 - 32	24.7	5.6	(1.4)	3.21
"	"	0 - 7	32.8			
		7 - 21	29.3			
		21 - 35	26.6			
			MATTOLE			
---	Humboldt	0 - 8	35.5	---	1.17	2.44
		8 - 15	28.8	---	1.20	1.41
		15 - 20	26.1	---	1.21	1.39
		20 - 38	27.0	---	1.21	1.57
		38 - 58	24.0	---	1.22	1.54
		58 - 63	24.5	---	1.22	1.52
			MAYMEN			
Gravelly Loam	Glenn	0 - 10	16.0	4.5	(1.5)	2.07
"	Lake	0 - 10	22.8	10.8	1.23	1.76
"	"	0 - 8	21.6	10.3	1.24	1.74
Very Gravelly Loam	Glenn	0 - 5	22.7	---	(1.5)	2.69
		5 - 9	21.2	---	(1.6)	2.33

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			MAYMEN (continued)			
Loam	Mendocino	0 - 1	25.0	7.7	1.22	2.53
		1 - 8	23.4	7.4	1.23	2.36
			MAYWOOD			
Sandy Loam	Glenn	0 - 24	10.8	4.9	1.34	0.95
		24 - 60	3.45	2.1	1.49	0.24
			MEIKLE			
Clay	Stanislaus	0 - 4	21.2	---	(1.9)	2.53
		4 - 16	34.3	---	(1.9)	4.26
		16 - 24	32.0	---	(1.9)	3.30
		24 - 36	21.3	---	(1.9)	---
		36 - 48	18.4	---	(1.8)	---
		48 - 60	21.4	8.3	(1.8)	---
			MELOLAND			
Very Fine Sandy Loam	Riverside	0 - 12	23.40	11.02	1.23	1.83
			MERCED			
Loam	Fresno	0 - 36	28.3	12.15	1.20	2.33
		36 - 72	23.5	9.22	1.23	2.11
Clay Loam	"	0 - 36	24.0	10.65	1.22	1.95
		36 - 72	24.4	6.34	1.22	2.64
"	"	0 - 36	23.5	10.65	1.23	1.90
(Fresno subsoil)		36 - 72	20.8	6.67	1.24	2.10
			METZ			
Fine Sandy Loam	Mohterey	0 - 16	15.67	6.50	1.29	1.42
"	"	Ridge	24.27	9.62	1.22	2.14
		0 - 6	23.57	9.84	1.22	2.01
		6 - 12	27.51	13.91	1.20	2.54
		12 - 18	34.11	17.62	1.18	2.33
		18 - 24	30.69	14.04	1.19	2.38
		24 - 30	23.28	---	---	---

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			METZ (continued)			
Very Fine Sandy Loam	Monterey	0 - 15	18.78	8.59	1.26	1.54
"	"	0 - 12	20.88	9.09	1.24	1.75
		12 - 24	22.85	11.78	1.23	1.63
		24 - 36	---	7.81	---	---
"	"	0 - 12	17.85	7.66	1.27	1.55
		12 - 24	19.49	9.14	1.26	1.56
		24 - 36	20.10	9.50	1.25	1.59
		36 - 48	18.29	---	1.26	---
		48 - 60	20.10	---	1.25	---
		60 - 72	29.68	---	1.19	---
"	"	0 - 12	12.66	6.53	1.32	0.97
		12 - 24	10.80	4.96	1.34	0.94
		24 - 36	---	10.92	---	---
"	"	0 - 12	16.00	7.11	1.29	1.38
		12 - 24	21.28	8.77	1.24	1.78
		24 - 36	22.65	10.67	1.23	1.77
		36 - 48	23.05	---	1.23	---
		48 - 60	27.66	---	1.20	---
		60 - 72	35.25	---	1.17	---
Loam	"	0 - 16	25.37	12.84	1.21	1.83
Silty Clay Loam	"	0 - 16	28.67	15.66	1.20	1.87
			MILLSAP			
Loam	Tehama	0 - 2	29.4	---	(1.7)	3.61
		2 - 9	26.8	---	(1.8)	3.13
		9 - 21	32.4	---	(1.9)	3.28
		21 - 31	34.6	---	(2.0)	3.58
		31 - 39	33.5	---	(1.9)	3.35
Clay Loam	Glenn	0 - 6	20.7	---	1.24	1.46
		6 - 17	27.7	---	1.20	1.40
			MILLSHOLM			
Loam	Tehama	0 - 2½	22.5	---	(1.7)	2.49
		2½ - 9	19.6	---	(1.7)	1.88
		9 - 14	20.6	---	(1.7)	1.75
		14 - 16	21.9	---	(1.7)	1.75

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			MILLSHOLM (continued)			
Clay Loam	Glenn	0 - 3/4	23.1	---	1.23	1.80
		3/4- 6	22.0	---	1.24	1.47
		6 - 16	22.3	---	1.23	1.37
			MODESTO			
Loam	Stanislaus	0 - 10	15.7	---	1.29	1.43
		10 - 12	16.4	---	(1.7)	2.06
		12 - 25	20.0	---	(2.0)	2.00
		25 - 35	18.8	---	(1.9)	2.02
		35 - 44	13.8	---	(1.8)	1.47
		44 - 55	16.1	---	(1.8)	1.87
		55 - 62	35.3	---	(1.5)	3.78
			MØLINOS			
Clay Loam	Tehama	---	26.43	14.26	1.21	1.77
"	"	---	26.95	16.74	1.20	1.48
			MONTARA			
Clay	Mendocino	0 - 4	30.1	---	(1.9)	---
		4 - 13	32.3	---	(1.9)	---
			MONTEZUMA			
Clay Loam	Monterey	0 - 40	27.52	12.35	1.20	2.18
Clay Adobe	San Benito	0 - 6	28.07	13.19	1.20	2.14
		6 - 12	31.47	14.73	1.19	2.39
Adobe	Tulare	0 - 6	21.80	10.94	1.24	1.62
			MORO COJO			
Sand	Santa Cruz	0 - 6	8.26	3.70	1.42	0.78
Loamy Sand	Monterey	0 - 15	5.92	1.61	1.42	0.73

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			MUSICK			
Loam	Fresno	0 - 6	24.1	---	(1.2)	2.07
		6 - 14	21.2	---	(1.4)	1.78
		14 - 34	19.2	---	(1.7)	1.53
		34 - 60	15.9	---	(1.6)	1.43
		60+	12.7	---	(1.6)	1.28
			MYERS			
Clay Loam	Glenn	0 - 12	23.8	11.5	1.22	1.80
		12 - 30	32.9	16.5	1.18	2.32
		30 - 50	33.4	16.6	1.18	2.38
		50 - 60	31.4	15.7	1.19	2.24
			NACIMIENTO			
Heavy Clay Loam	Glenn	0 - 19	25.7	---	(1.75)	---
		19 - 29	28.7	---	(1.70)	---
		29 - 60	20.8	---	(1.80)	---
			NEUNS			
Coarse Sandy Loam & Gravelly Loam	Lake	0 - 4	31.6	13.6	1.18	2.55
		4 - 13	26.4	14.0	1.21	1.80
		13 - 28	26.5	12.3	1.21	2.06
			NEWVILLE			
Gravelly Sandy Loam	Glenn	0 - 8	14.5	4.6	1.30	1.54
		8 - 19	13.4	5.0	1.31	1.33
		19 - 30	36.0	18.5	1.17	2.46
		30 - 36	29.6	15.7	1.19	1.99
		36 - 60	22.3	12.0	1.24	1.54
Gravelly Silty Loam	Tehama	0 - 1½	26.1	---	(1.9)	4.30
		1½ - 6	23.5	---	(1.9)	3.76
		6 - 9½	23.5	---	(1.8)	3.26
		9½ - 13	25.4	---	(1.9)	2.99
		13 - 20	26.6	---	(2.0)	3.22
		20 - 42	19.3	---	(2.0)	1.97
		42 - 56+	18.6	---	(2.0)	1.92

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			OAKDALE			
Sandy Loam	Stanislaus	0 - 1	22.9	---	(1.7)	---
		1 - 13	10.1	2.8	(1.7)	1.37
		13 - 25	10.4	3.6	(1.7)	1.35
		25 - 38	14.5	5.7	(1.9)	1.85
		38 - 45	11.6	---	(1.9)	1.60
		45 - 60	8.7	---	(1.7)	0.90
			OAKLEY			
Sand	Contra Costa	0 - 12	5.30++	2.26	1.43	0.52
		12 - 96	4.66++	2.17	1.46	0.44
Fine Sand	Santa Barbara	0 - 6	5.22+	2.03	1.45	0.54
		12 - 36	5.69+	2.29	1.43	0.58
		36 below	8.45+	4.14	1.37	0.71
"	Stanislaus	0 - 12	3.28	1.88	1.50	0.25
"	"	0 - 12	3.30	1.40	1.50	0.34
Sandy Loam	Yuba	0 - 12	10.66	4.41	1.34	1.01
		12 - 24	10.68	4.68	1.34	0.96
		24 - 36	10.41	4.85	1.34	0.89
		36 - 48	11.93	6.13	1.32	0.92
		48 - 60	14.06	7.66	1.30	1.00
			OLYMPIA			
Stony Loam	Sonoma	12 - 24	17.47	10.09	1.27	1.01 !
			OLYMPIC			
Stony Loam	Sonoma	12 - 24	25.21	11.40	1.22	1.58 !
		30 - 32	25.86	11.08	1.21	1.29 !
"	"	12 - 24	21.37	11.89	1.24	1.35 !
		30 - 36	23.96	13.51	1.22	1.35 !
Loam	Tehama	0 - 4	32.9			
		4 - 15	28.6			
Clay Loam		15 - 29	30.0			
		29 - 40	34.6			
Clay		40 - 55	55.9			

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
		OLYMPIC (continued)				
Sandy Loam	Tehama	0 - 5	24.7			
		5 - 12	24.6			
		12 - 18	26.4			
Sandy Clay Loam		18 - 30	26.2			
		30 - 42	29.9			
Sandy Loam	"	0 - 1½	40.4			
		1½ - 13	36.9			
Sandy Clay Loam		13 - 21	38.1			
		21 - 36	45.6			
Adobe	Tulare	---	24.14	13.14	1.22	1.61
"	"	---	22.36	12.94	1.24	1.40
"	"	---	26.86	16.06	1.21	1.58
"	"	---	22.96	12.66	1.23	1.52
		ORLAND				
Fine Sandy Loam	Glenn	0 - 10	20.5	7.8	1.25	1.97
		10 - 26	18.9	6.7	1.26	1.86
		26 - 38	16.8	6.8	1.26	1.82
		38 - 52	16.4	6.6	1.26	1.78
		52 - 60	10.8	4.6	1.35	1.00
"	"	1 - 11	16.2	---	(1.60)	---
		11 - 19	17.0	---	(1.30)	---
		19 - 39	17.5	---	(1.40)	---
		39 - 60	5.8	---	---	---
Silty Loam	Tehama	0 - 8	28.52	10.24	1.20	2.63
		42 - 60	24.42	11.89	1.22	1.83
		PAJARO				
Loam	Santa Cruz	0 - 12	9.82	5.38	1.35	0.72
		12 - 24	7.75	4.75	1.38	0.50
		24 - 36	7.83	4.79	1.38	0.50
		36 - 48	14.10	7.71	1.30	1.00
		48 - 60	12.29	6.96	1.32	0.84
		60 - 72	25.32	11.50	1.21	2.01
		72 -108	25.34	12.07	1.21	1.93
		108 -144	13.95	7.36	1.30	1.03

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			PAJARO (continued)			
Loam	Santa Cruz	0 - 12	10.55	5.74	1.34	0.77
		12 - 24	8.98	5.11	1.37	0.64
		24 - 36	9.21	5.24	1.37	0.65
		36 - 48	16.00	7.07	1.29	1.38
		48 - 60	16.09	8.78	1.29	1.13
		60 - 72	24.34	11.61	1.22	1.86
		72 -108	22.83	11.08	1.23	1.73
		108 -144	26.38	12.42	1.21	2.03
"	Monterey	0 - 12	30.59	15.52	1.19	2.15
		12 - 24	30.83	19.21	1.19	1.66
		24 - 36	30.41	18.38	1.19	1.72
"	"	0 - 12	29.12	15.50	1.19	1.94
		12 - 24	30.83	16.39	1.19	2.06
		24 - 36	30.15	16.06	1.19	2.01
Clay Loam Adobe	Monterey	0 - 12	30.90	16.14	1.19	2.11
		12 - 24	30.95	16.76	1.19	2.03
		24 - 36	30.83	17.06	1.19	1.97
		36 - 48	25.30	12.66	1.21	1.84
		48 - 60	20.74	8.87	1.25	1.78
		60 - 72	23.68	9.73	1.22	2.04
		72 -108	29.95	12.63	1.19	2.47
		108 -144	29.60	11.86	1.20	2.55
			PANOCHE			
Loam	Fresno	0 - 12	19.80			
		12 - 24	23.14			
		24 - 36	20.69			
		36 - 48	27.44			
"	"	0 - 12	17.38			
		12 - 24	28.28			
		24 - 36	29.69			
		36 - 48	26.35			
"	"	0 - 6	19.02)			
		6 - 12	18.74)	9.32		
		12 - 24	23.76)			
		24 - 36	25.41)	8.44		
		36 - 48	15.96)			

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			PANOCHE (continued)			
Loam	Fresno	0 - 6	18.61)			
		6 - 12	19.96)	9.08		
		12 - 24	22.94)			
		24 - 36	18.43)	8.20		
		36 - 48	18.28)			
"	"	0 - 12	18.49			
		12 - 24	22.52			
		24 - 36	22.60			
		36 - 48	22.27			
"	"	0 - 6	19.73)			
		6 - 12	19.65)	9.01		
		12 - 24	23.47)			
		24 - 36	19.93)	8.27		
		36 - 48	17.07)			
"	"	0 - 12	22.89			
		12 - 24	21.04			
		24 - 36	17.99			
		36 - 48	16.76			
"	"	0 - 6	17.32)			
		6 - 12	18.72)	9.61		
		12 - 24	22.86)			
		24 - 36	22.99)	9.15		
		36 - 48	17.70)			
Clay Loam	"	0 - 12	24.03	13.18	1.22	1.57
		12 - 24	27.58	---	---	---
		24 - 36	25.68	---	---	---
		36 - 48	26.93	---	---	---
"	"	0 - 12	23.44			
		12 - 24	23.46			
		24 - 36	24.66			
		36 - 48	27.98			
"	"	0 - 12	24.74			
		12 - 24	24.11			
		24 - 36	24.81			
		36 - 48	25.89			
"	"	0 - 12	22.24	11.90	1.24	1.54
		12 - 24	22.37	---	---	---
		24 - 36	22.70	---	---	---
		36 - 48	25.41	---	---	---

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
		PANOCHE (continued)				
Clay Loam	Fresno	0 - 12	23.68	12.90	1.23	1.58
		12 - 24	21.66	---	---	---
		24 - 36	23.25	---	---	---
		36 - 48	24.99	---	---	---
"	"	0 - 12	23.53			
		12 - 24	22.94			
		24 - 36	22.13			
		36 - 48	23.91			
"	"	0 - 12	23.12	12.80	1.23	1.52
		12 - 24	27.66	---	---	---
		24 - 36	24.69	---	---	---
		36 - 48	23.85	---	---	---
"	"	0 - 12	22.91	12.99	1.23	1.46
		12 - 24	23.50	---	---	---
		24 - 36	23.33	---	---	---
		36 - 48	24.20	---	---	---
"	"	0 - 12	23.69			
		12 - 24	25.57			
		24 - 36	23.63			
		36 - 48	25.19			
"	"	0 - 12	23.23	11.24	1.23	1.77
		12 - 24	25.11	---	---	---
		24 - 36	23.61	---	---	---
		36 - 48	26.58	---	---	---
"	"	0 - 12	22.97	12.40	1.23	1.56
		12 - 24	24.53	---	---	---
		24 - 36	25.89	---	---	---
		36 - 48	24.68	---	---	---
"	"	0 - 12	22.96			
		12 - 24	24.50			
		24 - 36	22.99			
		36 - 48	24.83			
"	"	0 - 12	29.88			
		12 - 24	23.31			
		24 - 36	23.98			
		36 - 48	27.07			
"	"	0 - 12	26.40			
		12 - 24	23.48			
		24 - 36	25.29			
		36 - 48	25.71			

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			PANOCHE (continued)			
Clay Loam	Fresno	0 - 12	24.44			
		12 - 24	24.97			
		24 - 36	23.86			
		36 - 48	25.67			
			PARRISH			
Gravelly Loam	Glenn	0 - 1	20.0	---	1.25	1.72
		1 - 6	19.0	---	1.26	1.75
		6 - 11	19.3	---	1.26	1.35
		11 - 25	24.4	---	1.22	1.33
Loam	"	0 - 5	21.1	7.2	(1.4)	2.34
		5 - 11	18.0	9.7	(1.4)	1.39
		11 - 25	26.8	15.0	(1.5)	2.12
"	Tehama	0 - 2	29.2	---	(1.5)	3.10
		2 - 6½	28.1	---	(1.5)	2.59
		6½ - 17	30.3	---	(1.9)	3.15
		17 - 26	28.0	---	(1.9)	3.06
		26 - 35	26.5	---	(2.0)	3.10
			PAULSELL			
Clay	Stanislaus	0 - 12	41.0	---	(1.9)	4.56
		12 - 24	38.0	---	(1.9)	3.88
		24 - 36	31.7	---	(1.8)	2.74
		36 - 60	20.1	---	(1.8)	2.14
			PENTZ			
Gravelly Loam	Stanislaus	0 - 3	23.1	---	(1.8)	2.94
		3 - 8	---	---	(1.6)	1.46
		8+	22.3	---	(1.7)	2.08
			PETERS			
Clay	Stanislaus	0 - 16	32.5	16.6	1.18	2.25
			PHIPPS			
Loam	Lake	0 - 4	21.8	10.1	1.24	1.74
		4 - 10	21.1	11.8	1.24	1.38
		10 - 23	26.7	14.5	1.21	1.77
		23 - 34	22.1	14.1	1.24	1.19

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			PINOLE			
Gravelly Loam	Sonoma	12 - 24	20.02	10.34	1.25	1.16
Clay Loam	Santa Clara	6 - 24	13.15	7.20	1.31	0.94
		24 - 42	16.91	7.74	1.28	1.41
		42 - 60	18.29	9.78	1.26	1.29
		60 - 72	22.25	11.90	1.22	1.52
		72 - 96	19.93	10.72	1.25	1.38
"	"	6 - 12	16.69	7.33	1.28	1.25
		12 - 24	15.66	6.59	1.29	1.20
		24 - 48	15.25	7.98	1.30	0.76
		48 - 72	13.74	8.01	1.30	0.58
"	"	6 - 12	14.78	8.06	1.30	1.05
		12 - 24	15.73	7.72	1.29	1.24
		24 - 48	14.46	8.43	1.30	0.74
		48 - 60	14.68	8.30	1.30	1.00
"	"	8 - 18	20.01	10.54	1.25	1.42
		20 - 30	19.56	10.83	1.25	1.31
		42 - 50	23.23	12.34	1.23	1.61
		66 - 78	22.42	15.27	1.24	1.06
			PINTO			
Loam	Santa Cruz	0 - 6	12.27	7.58	1.42	0.76
			PLACENTIA			
Sandy Loam	Placer	---	15.34	6.74	1.30	1.34
"	"	---	10.80	4.11	1.34	1.08
"	"	---	15.18	6.71	1.30	1.32
"	"	---	13.60	5.29	1.31	1.31
Fine Sandy Loam	"	---	13.78	4.99	1.30	1.37
Loam	"	---	13.43	5.59	1.31	1.23
"	Los Angeles	0 - 18	15.57	7.10	1.29	1.30
		18 - 36	17.01	7.69	1.28	1.42
		36 - 60	17.88	9.39	1.27	1.29

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			PLACENTIA (continued)			
Loam	Los Angeles	0 - 30	16.46	8.44	1.28	1.23
		30 - 60	21.27	12.20	1.24	1.35
			PLASKETT			
Gravelly Loam	Glenn	0 - 3	27.6			
		3 - 13	23.4			
		13 - 27	23.2			
Slightly Gravelly Loam	"	0 - 2	24.0	8.3	(1.1)	2.02
		2 - 10	24.0	4.6	(1.4)	3.26
		10 - 21	23.8	4.6	(1.5)	3.46
		21 - 31	23.1	4.3	(1.5)	3.33
			PLEASANTON			
Gravelly Loam	Santa Clara	6 - 24	17.64	8.68	(1.27)	1.32
		24 - 36	14.87	7.24	(1.30)	1.19
		36 - 48	11.33	7.40	(1.33)	0.46 !
		48 - 84	11.16	7.54	(1.33)	0.45 !
		84 - 96	11.61	6.89	(1.33)	0.60 !
"	"	6 - 12	15.34	7.24	1.30	1.05 !
		12 - 24	14.21	7.44	1.30	0.76 !
		24 - 48	11.40	7.74	1.33	0.32 !
		48 - 72	11.99	7.83	1.32	0.42 !
Gravelly Sandy Loam	San Benito	0 - 24	15.63	7.13	1.29	1.32
Sandy Loam	Santa Barbara	0 - 24	9.02	4.31	1.37	0.77
		30 - 42	8.48	4.06	1.37	0.73
		42 - 48	10.42+	5.05	1.35	0.87
		48 - 60	10.83	4.62	1.34	1.00
			PLUTH			
Loam	Lake	0 - 11	38.2	17.4	1.16	2.90
		11 - 28	37.1	18.2	1.17	2.65
		28 - 46	25.5	15.4	1.21	1.47
			POLE			
Clay Loam	Fresno	0 - 36	7.8	3.70	1.38	0.68

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			POLEBAR			
Gravelly Loam	Glenn	0 - 8	17.1	---	1.28	1.50
		8 - 18	19.7	---	1.25	0.90
		18 - 35	18.2	---	1.27	1.26
Light Clay Loam	"	0 - 6	20.1	8.0	(1.5)	2.27
		6 - 17	21.8	11.7	(1.5)	1.82
		17 - 32	18.5	8.0	(1.7)	1.89
			POND			
Sandy Loam	Los Angeles	12 - 42	8.51+	4.38	1.37	0.68
Loam	"	8 - 36	9.63	4.60	1.36	0.82
			PORTERVILLE			
Adobe Clay	Tulare	0 - 12	33.76	19.27	1.18	2.05
		12 - 24	33.58	18.82	1.18	2.09
Adobe	"	---	26.24	13.40	1.21	1.86
"	"	---	19.80	8.48	1.25	1.70
"	"	---	19.20	9.04	1.26	1.54
"	"	---	26.36	12.76	1.21	1.97
"	"	---	26.04	14.12	1.21	1.73
"	"	---	17.10	8.28	1.28	1.35
"	"	---	22.26	12.60	1.24	1.42
"	"	---	25.76	14.82	1.21	1.59
"	"	---	24.96	13.68	1.22	1.65
			RAMONA			
Loam	Los Angeles	0 - 18	14.66	7.33	1.30	1.14
		18 - 36	15.12	8.39	1.30	0.97
		36 - 60	14.13	8.62	1.30	0.74
"	"	0 - 60	16.36	6.71	1.28	1.48

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			RAMONA (continued)			
Loam	Los Angeles	0 - 18	13.33	6.30	1.31	1.02 !
		18 - 36	15.01	7.42	1.30	1.09 !
		36 - 60	14.73	7.54	1.30	1.03 !
"	"	0 - 18	13.55	6.29	1.31	1.14
		18 - 48	14.59	7.69	1.30	1.03 !
		48 - 72	14.51	7.79	1.30	0.99 !
"	"	0 - 18	16.11	7.50	1.29	1.33
		18 - 36	16.88	8.89	1.28	1.23
		36 - 60	17.32	9.11	1.28	1.26
"	"	0 - 24	12.59	5.78	1.31	1.07
		24 - 48	13.92	7.22	1.30	1.05
"	"	0 - 12	16.23	7.40	1.29	1.37
		12 - 24	19.34	10.56	1.26	1.34
Clay Loam	"	0 - 15	19.80	9.75	1.25	1.51
		15 - 36	18.77	9.88	1.26	1.34
		36 - 54	18.17	9.86	1.27	1.27
			RAYNOR			
Clay	Stanislaus	0 - 15	26.0	---	(2.0)	3.36
		15 - 30	31.1	---	(1.9)	3.31
		30 - 39	33.1	---	(1.8)	3.82
		39 - 50	33.6	---	(1.9)	4.72
		50+	29.4	---	1.20	2.20
			REDDING			
Gravelly Loam	Stanislaus	0 - 3	15.0	---	(1.9)	2.51
		3 - 12	15.4	---	(1.9)	2.50
		12 - 18	34.0	---	(1.9)	3.19
		18 - 28	20.9	---	(1.9)	---
		28 - 52	24.8	---	(1.8)	---
			RINCON			
Very Fine Sandy Loam	Monterey	0 - 12	14.15	6.45	1.30	1.20
Loam	"	0 - 16	27.58	15.21	1.20	1.78

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			RINCON (continued)			
Loam	San Benito	0 - 6	19.17	9.17	1.26	1.51
		6 - 12	22.77	11.58	1.23	1.65
		12 - 18	25.09	13.82	1.22	1.65
Clay Loam	San Joaquin	0 - 12	26.40	15.29	(1.55)	2.07
		12 - 24	28.26	16.94	(1.60)	2.17
		24 - 36	23.30	15.05	1.23	1.22
		36 - 48	23.79	15.00	1.22	1.29
Clay	Stanislaus	0 - 11	19.21	11.16	1.26	1.22
		12 - 24	19.52	11.38	1.26	1.23
		25 - 40	19.40	10.40	1.26	1.36
		40 - 57	17.32	9.38	1.27	1.21
"	Contra Costa	0 - 12	25.64	15.39	1.21	1.49
		12 - 40	23.84	15.28	1.22	1.25
		40 - 80	23.73	15.60	1.22	1.19
			RIPPERDAN			
Sandy Loam	Stanislaus	0 - 6	10.66	3.08	(1.70)	1.55
		6 - 12	10.15	3.40	(1.71)	1.39
		12 - 24	9.80	3.14	(1.55)	1.24
		24 - 30	10.06	3.20	(1.62)	1.33
			ROCKCRUSHER			
Silt	Los Angeles	---	3.99+	2.24	1.47	0.31
			ROCKLIN			
Fine Sandy Loam	Placer	---	16.88	6.85	1.28	1.54
"	"	---	11.03	4.24	1.34	1.09
"	"	---	12.13	4.62	1.32	1.19
"	"	---	11.58	4.83	1.33	1.08
"	"	---	14.49	6.27	1.30	1.28
"	"	---	11.36	4.54	1.33	1.09

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			ROCKLIN (continued)			
Fine Sandy Loam	Stanislaus	0 - 7	9.5	2.4	(1.7)	1.42
		7 - 9	9.8	---	(1.8)	---
		9 - 17	9.8	---	(1.9)	---
		17 - 22	11.1	---	(1.9)	---
		22 - 28	14.1	---	(1.9)	---
			ROHNERVILLE			
Fine Sandy Loam	Humboldt	0 - 32	23.38	14.56	(1.22)	1.29
"	"	0 - 36	24.12	14.80	(1.22)	1.36
			ROSITAS			
Fine Sand	Riverside	0 - 12	12.20	4.47	1.32	1.22
Fine Sandy Loam	"	0 - 12	15.47	7.39	1.29	1.25
			ROSSI			
Clay Loam	Stanislaus	0 - 3	28.3	---	(1.6)	4.42
		3 - 11	32.0	---	(1.9)	---
		11 - 21	32.3	---	(1.9)	6.34
		21 - 38	25.5	---	(1.9)	5.79
		38 - 56	23.7	---	(1.8)	5.57
			RUMSEY			
Silty Loam	Tehama	0 - 2	25.4	---	(1.7)	3.23
		2 - 6	22.6	---	(1.7)	2.46
		6 - 9	22.8	---	(1.7)	1.94
		9 - 17	24.9	---	(1.8)	2.18
		17 - 24	25.9	---	(1.9)	2.53
		24 - 34	26.4	---	(1.8)	2.81
		34+	28.7	---	(1.7)	3.16
			RYERE			
Loam	Stanislaus	0 - 6	23.7	11.24	(1.60)	2.39
		6 - 16	22.2	11.00	(1.62)	2.18
		16 - 25	23.6	11.98	(1.67)	2.33
		25 - 37	23.8	12.5	(1.58)	2.14
		37 - 48	23.8	13.17	(1.51)	1.93

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			RIVERWASH			
---	Yuba	0 - 12	7.40	3.43		
		12 - 24	7.09	3.36		
		24 - 36	6.76	3.19		
		36 - 48	18.41	6.72		
		48 - 60	22.75	7.61		
"	"	0 - 12	17.59	6.20		
		12 - 24	15.97	5.66		
		24 - 36	16.62	5.47		
		36 - 48	15.98	5.93		
		48 - 60	22.33	7.16		
"	"	0 - 12	14.72	6.32		
		12 - 24	18.00	6.34		
		24 - 36	13.68	5.80		
"	"	0 - 12	15.34	6.07		
		12 - 24	12.99	5.38		
		24 - 36	12.29	4.87		
			SALINAS			
Fine Sandy Loam	Monterey	0 - 15	15.41	6.82	1.30	1.34
"	"	0 - 12	29.32	16.17	1.20	1.89
		12 - 24	29.93	17.22	1.19	1.81
		24 - 36	31.14	18.66	1.19	1.80
"	"	0 - 12	27.71	16.15	1.20	1.66
		12 - 24	30.82	17.04	1.19	1.97
		24 - 36	29.93	16.82	1.19	1.89
"	"	0 - 12	29.46	16.14	1.20	1.92
		12 - 24	32.10	19.79	1.18	1.74
		24 - 36	28.23	20.05	1.20	1.18
		36 - 48	28.56	---	---	---
		48 - 60	28.58	---	---	---
		60 - 72	19.84	---	---	---
"	"	0 - 12	29.16	15.96	1.20	1.90
		12 - 24	32.27	19.81	1.18	1.76
		24 - 36	31.69	19.15	1.18	1.78
		36 - 48	28.56	---	---	---
		48 - 60	35.27	---	---	---
		60 - 72	26.11	---	---	---

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
		SALINAS (continued)				
Fine Sandy Loam	Monterey	0 - 12	29.22	16.31	1.20	1.86
		12 - 24	31.44	19.40	1.19	1.72
		24 - 36	30.63	19.09	1.19	1.65
		36 - 48	28.92	16.28	1.20	1.82
"	"	0 - 12	29.45	15.23	1.20	2.05
		12 - 24	31.02	18.45	1.19	1.79
		24 - 34	33.92	22.07	1.18	1.68
		36 - 48	30.45	19.68	1.19	1.54
"	"	0 - 12	29.10	15.75	1.20	1.92
		12 - 24	31.02	17.77	1.19	1.89
		24 - 36	33.62	20.21	1.18	1.90
		36 - 48	30.21	17.71	1.19	1.79
		48 - 60	32.05	---	1.18	---
		60 - 72	25.90	---	1.21	---
"	"	0 - 12	28.55	16.45	1.20	1.74
		12 - 24	31.76	18.62	1.19	1.88
		24 - 36	30.54	---	---	---
		36 - 48	28.25	---	---	---
		48 - 60	31.75	---	---	---
		60 - 72	26.99	---	---	---
" (over-wash phase)	"	0 - 12	17.54	7.09	1.27	1.59
Very Fine Sandy Loam	Monterey	0 - 18	27.90	15.20	1.20	1.83
Silty Clay Loam	"	0 - 48	26.11	13.17	1.21	1.88
"	"	0 - 12	29.56	13.11	1.19	2.35
		12 - 24	28.33	12.49	1.20	2.28
"	"	Ridge - 6	24.63	13.42	1.22	1.64
		12 - 18	25.17	13.05	1.22	1.77
		24 - 30	24.33	11.74	1.22	1.84
"	"	Ridge - 6	25.16	13.07	1.22	1.77
		12 - 18	26.35	12.82	1.21	1.96
		24 - 30	24.50	12.65	1.22	1.73
Clay Loam	"	0 - 16	18.34	8.27	1.26	1.52
Clay	"	0 - 18	29.85	14.00	1.19	2.26
"	"	0 - 12	32.63	16.39	1.18	2.30
		12 - 24	34.53	16.80	1.17	2.49

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			SALMINUS			
Gravelly Loam	Tehama	0 - 3	36.8			
		3 - 8	30.8			
		8 - 22	27.9			
		22 - 34	27.8			
		34 - 45	30.3			
Loam	"	0 - 2	28.1			
		2 - 8	25.9			
		8 - 24	24.9			
		24 - 39	32.0			
		39 - 54	42.5			
"	Lake	0 - 2	31.3	10.6	1.19	2.56
		2 - 10	28.3	12.3	1.20	2.15
		10 - 33	25.4	12.7	1.22	1.58
		33 - 48	29.9	17.5	1.20	1.83
			SAN JOAQUIN			
Gravelly Loam	Placer	---	23.67	10.35	1.23	1.97
"	"	---	15.33	6.14	1.30	1.43
"	"	---	15.68	5.38	1.29	1.59
"	"	---	9.87	3.88	1.35	0.97
"	Yuba	0 - 12	10.42	6.69	(1.34)	0.60
		12 - 24	9.86	6.68	(1.35)	0.52
Sandy Loam	Tulare	0 - 7	10.97	4.40	1.34	1.06
"	"	0 - 7	11.66	4.38	1.32	1.15
"	"	8 - 15	10.01	4.70	1.35	0.84
"	"	8 - 15	11.82	4.85	1.32	1.10
"	"	---	11.80	2.82	1.32	1.42
"	"	---	9.76	3.32	1.35	1.04
"	"	0 - 12	13.70	3.93	1.30	1.52
		12 - 24	13.40	4.10	1.31	1.46
Gravelly Loam	Yuba	0 - 12	12.88	6.88	(1.31)	0.94
		12 - 24	12.27	6.77	(1.32)	0.87

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
		SAN JOAQUIN (continued)				
Sandy Loam	Stanislaus	0 - 3	16.3	---	(1.5)	1.58
		3 - 10	12.6	3.3	(1.8)	1.90
		10 - 13	13.2	---	(1.8)	1.36
		13 - 19	15.0	6.5	(1.8)	1.81
		19 - 24	19.0	---	(1.9)	2.14
		24 - 48	---	---	(1.9)	---
		48 - 60	---	---	(1.9)	---
Fine Sandy Loam	Placer	---	14.63	6.30	1.30	1.30
"	"	---	10.47	4.65	1.35	0.94
"	"	---	14.48	4.89	1.30	1.50
"	"	---	14.22	4.41	1.30	1.53
"	"	---	13.14	5.12	1.31	1.26
"	"	---	13.90	5.64	1.30	1.28
"	"	---	11.29	4.81	1.34	1.04
"	"	---	12.05	4.87	1.32	1.14
Loam	"	---	15.38	5.64	1.29	1.51
"	"	---	12.96	6.25	1.31	1.05
"	"	---	12.55	6.08	1.32	1.02
"	"	---	12.84	5.32	1.32	1.19
"	"	---	10.71	3.69	1.34	1.13
"	"	---	27.95	19.13	1.20	1.27
"	"	---	14.66	6.10	1.30	1.34
"	"	---	14.66	5.83	1.30	1.38
"	Tulare	---	16.36	6.12	1.28	1.57
			12.06	4.80	1.32	1.15
			12.56	4.04	1.32	1.35
			17.98	4.98	1.27	1.98
			11.30	4.60	1.33	1.07

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			SAN JOAQUIN (continued)			
Loam	Fresno	---	7.0	3.0	1.40	0.67
"	"	0 - 12	7.8	3.0	1.38	0.79
		12 - 24	8.0	4.2	1.38	0.63
		24 - 36	9.1	4.4	1.37	0.77
		36 - 48	9.6	4.9	1.36	0.77
		48 - 60	10.1	5.5	1.35	0.75
---	Yuba	0 - 12	15.97	6.30	1.29	1.50
		12 - 24	19.90	9.65	1.26	1.55
			SAN YSIDRO			
Clay Loam	Santa Clara	6 - 24	19.04	8.77	1.26	1.55
		24 - 30	24.30	13.21	1.22	1.62
		30 - 48	24.48	13.30	1.22	1.64
		48 - 72	18.89	10.64	1.26	1.25
		72 - 90	21.12	11.66	1.24	1.41
			SEHORN			
Silty Clay Loam	Glenn	0 - 5	25.8	---	1.21	1.64
		5 - 13	26.5	---	1.21	1.38
		13 - 27	27.0	---	1.21	1.34
Clay	Tehama	0 - 3	30.7	---	(1.9)	2.64
		3 - 10	29.7	---	(1.9)	2.67
		10 - 18	28.7	---	(1.9)	2.17
		18 - 26	28.8	---	(2.0)	2.35
		26 - 33	29.0	---	(2.0)	3.00
			SHAVER			
Coarse Sandy Loam	Fresno	0 - 5	19.3	---	(1.1)	---
		5 - 36	14.1	---	(1.4)	---
		36 - 72	11.6	---	(1.5)	---
			SHEETIRON			
Gritty Loam	Glenn	0 - 4	24.1	8.3	(1.2)	2.28
		4 - 11	26.6	8.1	(1.3)	2.89
		11 - 26	24.2	9.3	(1.4)	2.50

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			SHEETIRON (continued)			
Gravelly Loam	Glenn	0 - 5	27.6	---	(1.6)	---
		5 - 15	23.0	---	(1.8)	---
		15 - 28	23.5	---	(1.7)	---
Loam	Lake	0 - 1	22.6	---	---	---
		1 - 8	20.7	---	1.24	1.53
		8 - 25	23.8	---	---	---
			SHERIDAN			
Sandy Loam	Santa Cruz	0 - 12	13.11	5.72	1.42	1.19
		12 - 24	13.56	6.13	1.42	1.20
			SHINN			
Coarse Sandy Loam	Fresno	0 - 3	14.9	---	(1.2)	1.42
		3 - 8	13.0	---	(1.2)	1.16
		8 - 17	12.2	---	(1.3)	1.10
		17 - 30	11.9	---	(1.5)	1.19
		30 - 54	11.4	---	(1.9)	1.35
		54+	6.18	---	(1.8)	8.42?
			SIEGLER			
Gravelly Loam	Mendocino	0 - 8	23.4	9.0	(1.4)	2.42
		8 - 15	25.0	13.0	(1.7)	2.45
		15 - 26	25.1	14.0	(1.8)	2.38
		26 - 36	26.1	13.9	(1.8)	2.64
Loam	Lake	0 - 5	26.2	13.4	1.21	1.86
		5 - 14	26.3	13.4	1.21	1.87
		14 - 24	29.9	17.7	1.19	1.74
		24 - 30	25.2	15.5	1.22	1.42
			SITES			
Stony Loam	Placer	---	23.49	12.43	1.23	1.63
"	"	---	21.41	12.85	1.24	1.27
"	"	---	26.49	14.90	1.21	1.68
"	"	---	25.71	12.24	1.21	1.96

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			SITES (continued)			
Stony Loam	Placer	---	19.38	9.10	1.26	1.55
"	"	---	24.19	11.19	1.22	1.90
Gravelly Loam	Glenn	0 - 3	29.4	---	---	---
		3 - 23	22.5	---	---	---
		23 - 52	22.1	---	(1.8)	---
Stony Clay Loam	Placer	---	23.89	12.77	1.22	1.63
			SNELLING			
Sandy Loam	Stanislaus	0 - 15	7.9	---	(1.7)	0.93
		15 - 19	8.3	---	(1.9)	1.10
		19 - 27	9.7	---	(2.0)	1.05
		27 - 40	14.1	---	(1.8)	1.46
		40 - 56	13.3	---	(1.8)	1.40
		56 - 74	10.9	---	(1.6)	0.98
			SOBRANTE			
Loam	Lake	0 - 3	21.6	10.8	1.24	1.61
		3 - 12	19.3	---	1.26	0.95
		12 - 28	26.3	---	1.21	0.70
			SOPER			
Gravelly Loam	Lake	0 - 6	17.9	12.1	1.27	1.23
		6 - 22	22.6	10.8	1.23	1.39
		22 - 37	24.3	17.4	1.22	1.01
			SORRENTO			
Gravelly Fine Sandy Loam	Santa Barbara	0 - 6	7.67+	4.38	1.39	0.55
		6 - 18	8.87+	4.86	1.37	0.66
		18 - 30	9.12+	5.09	1.37	0.66
		30 - 48	10.46	5.89	1.34	0.73
"	"	0 - 6	8.65+	4.37	1.37	0.70
		6 - 18	7.86+	5.09	1.38	0.46
		18 - 30	7.75+	4.74	1.38	0.50
		30 - 48	8.65+	4.34	1.37	0.71

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
		SORRENTO (continued)				
Fine Sandy Loam	Santa Barbara	0 - 6	12.37	6.64	1.32	0.91
		6 - 18	14.26	7.53	1.30	1.05
		18 - 30	13.80	8.13	1.30	0.88
		30 - 48	13.04	7.20	1.31	0.92
"	"	0 - 6	12.23	6.76	1.32	0.87
		6 - 18	13.61	7.66	1.31	0.94
		18 - 30	13.42	7.63	1.31	0.91
		30 - 48	12.89	7.20	1.31	0.89
Loam	Stanislaus	0 - 13	27.87	15.10	1.20	1.84
		13 - 26	27.48	15.67	1.20	1.70
		26 - 53	26.22	15.91	1.21	1.50
"	"	0 - 13	23.09	11.62	1.23	1.69
		13 - 26	22.95	13.56	1.23	1.39
		26 - 53	21.90	12.18	1.24	1.45
"	"	0 - 12	24.01	13.47	1.22	1.54
		12 - 24	23.73	11.96	1.23	1.74
		24 - 36	21.94	11.89	1.24	1.50
Silty Clay	San Joaquin	0 - 12	25.01	13.76	(1.44)	1.96
		12 - 24	27.98	15.90	(1.55)	2.25
		24 - 36	25.80	14.77	1.21	1.60
		36 - 48	25.31	13.62	1.21	1.70
Clay Loam	Stanislaus	0 - 12	23.33	---	1.23	---
		12 - 24	23.67	---	1.23	---
		24 - 36	22.46	---	1.23	---
		36 - 48	21.41	---	1.24	---
		48 - 60	20.51	---	1.25	---
		60 - 72	17.84	---	1.27	---
"	Contra Costa	0 - 20	22.57	11.22	1.23	1.68
		20 - 78	23.02	12.33	1.23	1.58
		STANDISH				
Loam	Lassen	0 - 14	14.14	8.56	(1.28)	0.86
		14 - 26	16.01	9.42	(1.20)	0.95
		26 - 32	17.50	9.90	(1.23)	1.12
		32 - 44	19.21	11.56	(1.25)	1.15
		44 - 56	19.69	11.00	(1.37)	1.43
		56 - 68	19.72	10.74	(1.49)	1.61
		68 - 80	24.41	13.12	(1.46)	1.98
		80 - 92	36.44	20.91	(1.19)	2.22
		92 -104	44.94	23.59	(0.86)	2.20
		104 -116	45.73	25.95	(0.83)	1.97

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			STANDISH (continued)			
Loam	Lassen	0 - 12	16.81	9.30	(1.29)	1.16
		12 - 24	18.58	10.07	(1.16)	1.18
		24 - 36	18.61	10.54	(1.20)	1.16
		36 - 48	19.36	10.40	(1.25)	1.34
		48 - 60	20.59	11.80	(1.40)	1.48
		60 - 72	23.62	13.49	(1.39)	1.69
		72 - 84	25.45	14.13	(1.39)	1.89
		84 - 96	37.96	21.93	(1.21)	2.33
			STONYFORD			
Gravelly Clay Loam	Mendocino	0 - 5	33.9	17.8	(1.4)	2.69
		5 - 15	32.2	19.3	(1.5)	2.32
Clay Loam	Glenn	0 - 4	31.4	16.4	(1.3)	2.34
		4 - 17	33.9	21.6	(1.3)	1.92
			STOVER			
Gravelly Loam	Tehama	0 - 8	24.6			
Loam	"	0 - 3	27.5			
Clay Loam		3 - 21	25.2			
		21 - 34	25.9			
		34 - 51	27.0			
			STUMP SPRINGS			
Sandy Loam	Fresno	0 - 4	16.1	---	(1.3)	1.59
		4 - 17	12.4	---	(1.4)	1.30
		17 - 42	17.4	---	(1.7)	1.12
		42+	13.8	---	(1.8)	0.90
			SUPAN			
Gravelly Loam	Tehama	0 - 5	28.7			
		5 - 18	24.3			
		18 - 36	25.7			
		36 - 42	30.5			

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			SURPRISE			
Fine Sandy Loam	Modoc	0 - 12	18.23	9.34	(1.16)	1.24
		12 - 24	19.64	10.78	(1.24)	1.32
		24 - 36	17.94	9.81	(1.20)	1.17
		36 - 48	22.87	10.86	(1.15)	1.66
		48 - 60	23.14	11.06	(0.94)	1.36
		60 - 78	15.92	8.38	(0.42)	0.38
"	"	0 - 12	26.57	14.84	(1.12)	1.58
		12 - 24	26.76	15.31	(1.27)	1.72
		24 - 36	31.16	17.07	(1.18)	1.37
		36 - 48	33.66	18.04	(1.29)	2.42
		48 - 60	28.25	15.58	(1.19)	1.81
		60 - 72	25.11	13.86	(1.23)	1.66
		72 - 84	22.26	12.37	(1.42)	1.69
		84 - 96	19.75	10.79	(1.37)	1.47
			SUTHERLIN			
Loam	Mendocino	0 - 2	27.9	10.9	(1.3)	2.65
		2 - 6	18.9	5.8	(1.7)	2.22
		6 - 11	19.2	7.6	(1.7)	1.98
		11 - 26	26.6	14.3	(1.8)	2.66
		36 - 41	23.5	---	(2.0)	---
		41 - 53	23.1	---	(1.9)	---
			SUTTER			
Clay Loam / Sandy Loam	Sutter	0 - 12	23.78	---	1.23	---
"	"	0 - 12	11.69	---	1.33	---
"	"	0 - 12	12.49	---	1.32	---
"	"	0 - 12	15.20	---	1.30	---
			TEHAMA			
Gravelly Loam	Sonoma	12 - 24	19.77	10.19	1.25	1.44
		24 - 36	18.28	10.07	1.27	1.21
		36 - 42	21.56	11.00	1.24	1.00
Silty Loam	Tehama	0 - 8	23.41	7.41	1.22	2.34
		10 - 20	21.81	8.58	1.23	1.96

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			TEHAMA (continued)			
Silty Loam	Glenn	0 - 12	20.0	8.3	1.25	1.75
		12 - 28	21.9	11.6	1.24	1.50
		28 - 60	22.2	11.3	1.24	1.61
Loam	Glenn	0 - 10	13.6	4.0	1.30	1.54
		10 - 32	14.6	4.8	1.30	1.53
		32 - 40	28.3	16.3	1.20	1.89
			TEMPLE			
Silty Clay Loam	Stanislaus	0 - 8½	36.2	---	(1.4)	4.62
		8½ - 15	33.9	---	(1.7)	4.65
		15 - 21	32.2	---	(1.7)	4.51
		21 - 26	29.0	---	(1.8)	3.72
		26 - 31	24.4	---	(1.8)	3.76
		31 - 44	19.6	---	(1.6)	3.39
		44 - 60?	4.0	---	(1.6)	0.36
			TOLLHOUSE			
Sandy Loam	Fresno	0 - 11	12.2	---	1.32	1.10
		11 - 18	11.7	---	1.32	1.08
		18+	8.19	---	1.38	1.18
			TOOMES			
Rocky Loam	Tehama	0 - 8	24.9			
"	"	0 - 8	26.0			
"	"	0 - 8	28.4			
"	"	0 - 2	22.1			
		2 - 7	22.1			
		7 - 12	22.4			
"	"	0 - 1½	34.1			
		1½ - 6	27.3			
			TRAVER			
Sandy Loam	Stanislaus	0 - 7	11.9	---	(1.6)	1.44
		7 - 23	6.2	---	(1.7)	0.80
		23 - 31	6.2	---	(1.7)	1.39
		31+	6.1	---	(1.7)	1.60

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			TUJUNGA			
Sand	Stanislaus	0 - 10	6.0	2.6	(1.3)	0.53
		10 - 30	5.2	2.3	(1.6)	0.56
		30 - 60	15.4	---	1.29	1.47
" (shallow phase)	Fresno	0 - 36	8.7	3.08	(62.7)	0.72
		36 - 72	3.5	1.12	(84.0)	0.39
"	"	0 - 3	1.3	0.51	2.0	0.19
Stony Sand	Los Angeles	0 - 24	7.30	3.66	1.39	0.31 !
"	"	0 - 24	7.47	3.49	1.38	0.58 !
		24 - 36	2.03	2.14	1.51	?
Gravelly Sand	Fresno	0 - 3	1.7	0.72	2.0	0.24
			TUSCAN			
Stony Loam	Stanislaus	0 - 4	19.75	8.27	1.26	1.74
			TYSON			
Gravelly Loam	Glenn	0 - 7	25.9	8.1	(1.1)	2.35
		7 - 16	26.9	8.5	(1.3)	2.87
		16 - 28	25.4	7.6	(1.3)	2.78
		28 - 40	23.8	7.4	(1.3)	2.56
			VINA			
Sandy Loam	Siskiyou	0 - 12	17.97	6.98	(1.29)	1.70
		12 - 24	12.82	8.37	(1.34)	0.72
		24 - 36	20.51	10.65	(1.24)	1.47
		36 - 48	13.60	6.95	(1.47)	1.24
		48 - 60	7.09	4.49	(1.56)	0.49
		60 - 72	5.20	3.43	(1.62)	0.34
		72 - 84	4.73	3.01	(1.62)	0.22
Loam	Tehama	0 - 12	22.66	11.32	1.23	1.67
		12 - 24	20.81	11.28	1.24	1.41
"	"	6 - 30	22.96	12.30		
		36 - 60	23.15	11.48		

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			VINA (continued)			
Loam (deep phase)	Butte	0 - 12	31.4	20.6		
		12 - 24	28.8	18.8		
		24 - 36	27.7	18.2		
		36 - 48	26.9	17.7		
		48 - 60	26.7	17.7		
		60 - 72	27.0	17.8		
		72 - 84	25.8	17.0		
		84 - 96	26.0	17.1		
		96 -108	25.6	16.8		
		108 -120	27.3	17.9		
		120 -132	26.4	17.4		
		132 -144	25.2	16.5		
Clay Loam	Tehama	6 - 24	22.30	11.55		
		24 - 44	23.06	11.22		
			WALKER			
Clay	Glenn	0 - 1	27.7	---	(1.9)	2.33
		1 - 6	28.0	---	(2.0)	2.35
		6 - 18	28.0	---	(2.0+)	2.21
		18 - 29	28.5	---	(2.0)	2.35
		29 - 43	29.2	---	(1.9)	3.01
		43+	28.8	---	(1.8)	3.02
			WATSONVILLE			
Sandy Clay Loam	Monterey	Ridge	20.70	8.15	1.25	1.88
		0 - 6	20.73	7.50	1.25	1.98
		6 - 12	20.39	8.07	1.25	1.85
		12 - 18	19.88	8.36	1.25	1.73
		18 - 24	28.78	13.92	1.20	2.14
"	"	Ridge	20.61	8.20	1.25	1.86
		0 - 6	21.15	8.85	1.24	1.83
		6 - 12	21.69	9.62	1.24	1.80
		12 - 18	20.49	8.53	1.25	1.79
		18 - 24	21.38	10.62	1.24	1.60
Silty Clay Loam	Santa Cruz	0 - 6	12.47	4.98	1.32	1.19
		6 - 12	12.14	4.92	1.32	1.14
		12 - 18	12.07	4.43	1.32	1.21
		18 - 24	9.36	3.04	1.36	1.03
		24 - 30	8.11	2.52	1.38	0.93
		30 - 36	13.84	7.01	1.30	1.07
		36 - 42	16.63	8.39	1.28	1.27

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			WATSONVILLE (continued)			
Silty Clay Loam	Santa Cruz	0 - 6	13.21	5.70	1.31	1.18
		6 - 12	13.58	5.32	1.31	1.30
		12 - 18	12.17	4.69	1.32	1.18
		18 - 24	10.36	3.51	1.34	1.24
		24 - 30	9.30	3.20	1.36	0.99
		30 - 36	14.54	7.02	1.30	1.17
		36 - 42	16.39	8.34	1.28	1.24
Clay Loam	"	0 - 12	11.93	5.24	1.32	1.06
		12 - 24	11.93	4.57	1.32	1.18
		24 - 36	13.26	6.25	1.31	1.10
		36 - 42	18.52	9.26	1.26	1.40
"	"	0 - 12	11.43	5.26	1.33	0.98
		12 - 24	11.31	4.78	1.33	1.04
		24 - 36	12.00	5.17	1.32	1.08
		36 - 42	16.84	8.55	1.28	1.27
			WAUKENA			
Fine Sandy Loam	Stanislaus	0 - 4	17.5	---	1.27	1.25
		4 - 6	9.6	---	(1.8)	1.68
		6 - 14	14.7	---	(2.0)	2.25
		14 - 24	14.4	---	(1.8)	1.79
		24+	19.0	---	(1.7)	3.09
			WESTFALL			
Loamy Sand	Fresno	0 - 5	10.5	---	1.34	1.11
		5 - 20	7.77	---	1.38	0.86
		20 - 32	6.87	---	1.40	1.01
Coarse Sandy Loam	"	0 - 9	14.9	---	(1.5)	---
		9 - 21	12.4	---	(1.2)	---
		21 - 34	10.9	---	(1.2)	---
			WHITE ROCK			
Silty Loam	Stanislaus	0 - 6	26.4	---	(1.6)	3.87
			WHITNEY			
Fine Sandy Loam	Placer	---	13.59	6.13	1.31	1.17
"	"	---	12.41	5.55	1.32	1.09

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			WHITNEY (continued)			
Fine Sandy Loam	Placer	---	15.39	6.80	1.29	1.33
"	"	---	22.58	8.49	1.23	2.08
"	"	---	14.45	6.06	1.30	1.31
"	"	---	10.73	4.08	1.34	1.07
"	"	---	9.96	4.37	1.35	0.91
"	"	---	13.91	5.58	1.30	1.30
"	Stanislaus	0 - 7	15.1	5.2	1.30	1.54
		7 - 16	14.8	5.1	1.30	1.51
		16 - 31	16.6	---	1.28	---
			WILDER			
---	Humboldt	0 - 4	28.0	---	1.20	1.79
		4 - 23	26.1	---	1.21	1.80
		23 - 31	24.4	---	1.22	2.01
		31 - 39	23.2	---	1.23	1.79
		39 - 47	20.1	---	1.25	1.28
"	"	0 - 9	29.7	---	1.19	1.84
		9 - 21	28.7	---	1.20	1.96
		21 - 34	25.2	---	1.22	1.86
		34 - 54	19.2	---	1.26	1.29
		54 - 70	16.7	---	1.28	1.17
			WILLOWS			
Silty Clay	Glenn	0 - 10	22.8	10.0	1.23	1.89
		10 - 29	33.7	12.6	1.18	2.99
		29 - 60	32.2	13.8	1.18	2.59
			WINDY			
Loamy Sand	Tehama	0 - 3	44.0			
Sandy Loam		3 - 15	34.6			
Sandy Clay Loam		15 - 27	35.9			
Clay Loam		27 - 44	38.2			

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			WYMAN			
Loam	Stanislaus	0 - 6	18.0	5.7	(1.7)	2.45
		6 - 11	20.0	8.2	(1.8)	2.55
		11 - 25	21.6	9.1	(1.8)	2.10
		25 - 40	19.6	---	(1.6)	2.25
		40 - 60	18.7	---	(1.5)	---
			WYO			
Silt Loam	Glenn	0 - 11	22.4	---	(1.70)	---
		11 - 29	22.1	---	(1.75)	---
		29 - 43	21.0	---	(1.55)	---
		43 - 50	23.2	---	(1.65)	---
		50 - 60	21.5	---	(1.60)	---
"	"	0 - 15	24.8	9.3	1.22	2.26
		15 - 32	23.8	10.7	1.22	1.92
		32 - 60	21.5	8.6	1.24	1.93
Loam	Tehama	0 - 12	27.36	15.15	1.20	1.76
		12 - 24	23.97	13.04	1.20	1.57
			YOKOHL			
Loam	Stanislaus	0 - 10	23.0	10.21	(1.56)	2.39
		10 - 16	23.2	11.50	(1.63)	2.29
		16 - 20	27.4	14.00	(1.51)	2.43
			YOLO			
Fine Sand	Sonoma	0 - 12	14.80	6.59	1.30	1.28
		12 - 24	14.47	6.63	1.30	1.03
		24 - 36	13.65	6.10	1.31	1.19
		36 - 48	10.90	5.46	1.34	0.87
		48 - 60	9.70	5.10	1.36	0.75
Gravelly Loam	Mendocino	0 - 12	17.51	7.34	1.27	1.55
		12 - 24	19.62	9.68	1.26	1.50
		24 - 36	21.24	11.27	1.24	1.48
		36 - 48	21.64	11.20	1.24	1.55
		48 - 60	20.83	10.92	1.24	1.47
		60 - 72	21.43	11.75	1.24	1.44
"	San Benito	0 - 12	23.71	14.10	1.22	1.41

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			YOLO (continued)			
Gravelly Loam	Sonoma	12 - 24	19.43	10.03	(1.25)	1.41
		24 - 36	20.34	11.78	(1.25)	1.20
		36 - 60	20.13	10.60	(1.25)	1.43
Gravelly Sandy Loam	Los Angeles	0 - 24	17.92	9.60	1.27	1.17
		24 - 48	16.38	9.05	1.29	1.02
"	"	0 - 24	8.78	4.78	1.37	0.74
		24 - 48	7.93	4.33	1.38	0.60
"	"	0 - 18	15.53	7.08	1.29	1.30
		18 - 48	11.09	5.52	1.34	1.01
Sandy Loam	Orange	0 - 12	13.3	6.5	1.31	1.07
		12 - 24	11.1	5.5	1.34	0.90
		24 - 36	9.2	4.7	1.37	0.74
		36 - 48	8.9	4.9	1.37	0.66
"	"	0 - 12	17.8	8.4	1.27	1.43
		12 - 24	16.3	7.5	1.28	1.35
		24 - 36	13.6	6.3	1.30	1.14
		36 - 48	14.5	6.5	1.30	1.25
"	Santa Barbara	0 - 6	15.61	7.15	1.40	1.42
		12 - 24	12.63	6.34	1.32	1.00
		36+	5.10+	2.79	1.45	0.40
"	Yolo	0 - 12	17.0	7.6	1.28	1.44
		12 - 24	16.3	9.1	1.29	1.11
		24 - 36	16.6	10.4	1.28	0.95
		36 - 48	20.7	10.8	1.25	1.49
		48 - 60	20.9	9.3	1.24	1.73
		60 - 72	17.4	10.8	1.27	1.01
Fine Sandy Loam	Los Angeles	0 - 24	19.31	9.28	1.26	1.52
		24 - 42	21.26	10.34	1.24	1.62
		42 - 72	19.46	9.57	1.26	1.50
"	Mendocino	0 - 12	16.0	6.7	1.29	1.44
		12 - 24	15.8	8.5	1.29	1.13
		24 - 36	19.8	10.9	1.25	1.34
		36 - 48	22.9	12.0	1.23	1.61
		48 - 60	21.5	11.5	1.24	1.49
		60 - 72	20.4	11.1	1.25	1.40
		72 -108	17.7	7.6	1.27	1.54
		108 -144	16.9	7.7	1.28	1.41

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
		YOLO (continued)				
Fine Sandy Loam	Santa Clara	6 - 18	20.04	10.14	1.25	1.64
		18 - 28	19.09	10.40	1.26	1.31
		32 - 40	26.76	13.44	1.20	1.92
		44 - 50	15.76	9.69	1.28	.93
		56 - 66	15.14	9.68	1.28	.84
		70 - 76	16.44	10.14	1.27	.96
		80 - 86	11.48	7.21	1.34	.68
"	Solano	0 - 16	20.46	10.23	1.25	1.53
		16 - 32	15.00	8.75	1.30	0.97
		32 - 48	12.28	7.59	1.32	0.74
"	Sonoma	12 - 24	15.63	8.43	(1.29)	1.14
(Stream bottom phase)		24 - 36	13.88	6.61	(1.30)	1.23
		36 - 60	10.12	5.91	(1.35)	0.68
		60 - 72	16.10	7.87	(1.29)	1.27
Silt Loam	San Benito	0 - 12	22.77	11.31	1.23	1.69
		12 - 24	19.97	8.67	1.25	1.70
		24 - 36	20.74	8.42	1.25	1.85
"	"	0 - 12	18.25	7.84	1.27	1.60
		12 - 24	19.03	7.83	1.26	1.69
		24 - 36	17.92	6.96	1.27	1.67
"	Santa Barbara	0 - 6	8.28+	4.05	1.38	0.70
		12 - 24	7.94+	3.50	1.38	0.74
		30 - 40	7.56+	3.66	1.39	0.65
"	Santa Clara	6 - 18	23.51	12.76	(1.23)	1.59
		36 - 48	13.63	8.29	(1.31)	0.84
		66 - 78	26.12	13.98	(1.21)	1.76
		84 - 96	29.56	15.99	(1.19)	1.94
"	"	6 - 24	25.25	14.85	(1.21)	1.51
		24 - 42	24.31	13.60	(1.22)	1.57
		42 - 60	34.17	20.43	(1.18)	1.95
		60 - 72	27.38	15.94	(1.20)	1.65
		72 - 84	34.03	20.09	(1.18)	1.98
		84 - 96	33.23	18.17	(1.18)	2.13
"	"	6 - 24	25.36	14.90	1.21	1.52
		24 - 48	26.11	14.42	1.21	1.70
		48 - 72	11.83	7.48	1.33	0.69
		72 - 96	11.57	6.80	1.33	0.76

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			YOLO (continued)			
Silt Loam	Santa Clara	6 - 12	24.78	14.82	1.22	1.46
		12 - 24	24.28	14.81	1.22	1.39
		24 - 48	21.08	12.85	1.24	1.22
		48 - 72	17.58	9.81	1.27	1.18
Silty Loam	"	8 - 18	19.31	10.53	1.26	1.33
		20 - 30	19.97	10.83	1.25	1.36
		42 - 50	22.38	12.34	1.23	1.48
		66 - 78	26.11	15.27	1.22	1.58
Loam	Los Angeles	0 - 24	20.69	11.35	1.24	1.39
		24 - 36	20.15	10.73	1.25	0.93 !
"	"	0 - 42	13.91	6.65	1.30	0.83 !
		42 - 72	13.00	6.01	1.31	0.81 !
"	"	0 - 18	20.53	10.03	1.25	1.40 !
		18 - 36	20.21	10.28	1.25	1.39 !
		36 - 48	17.72	8.61	1.27	1.17 !
"	"	0 - 18	12.83	7.39	1.31	0.86
		18 - 36	13.28	7.23	1.31	0.95
		36 - 60	15.00	8.23	1.30	1.06
"	Santa Barbara	6 - 18	14.79	7.63	1.30	1.12
		20 - 30	17.36	9.50	1.27	1.20
		30 - 40	29.07	17.46	1.20	1.67
"	Sonoma	12 - 24	14.71	8.20	(1.30)	1.02
		24 - 36	14.28	7.29	(1.30)	1.08
		36 - 60	13.25	6.63	(1.31)	1.04
"	"	0 - 12	21.0	9.6	1.24	1.70
		12 - 24	16.9	8.4	1.28	1.31
		24 - 36	14.1	7.3	1.30	1.06
		36 - 48	14.3	8.0	1.30	0.98
		48 - 60	13.3	6.4	1.31	1.08
		60 - 72	12.3	6.1	1.32	0.98
"	Yolo	0 - 12	17.43	8.79	1.27	1.32
		12 - 24	16.91	8.83	1.28	1.24
		24 - 36	15.71	8.63	1.29	1.10
		36 - 48	20.87	9.66	1.24	1.67
		48 - 60	24.69	10.89	1.22	2.02
		60 - 72	21.23	9.77	1.24	1.71
		72 -108	15.09	7.71	1.30	1.15
		108 -144	34.00	11.86	1.18	3.14

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			YOLO (continued)			
Loam	Yolo	0 - 12	22.59	10.59	1.23	1.77
		12 - 24	21.04	9.95	1.24	1.65
		24 - 36	18.97	9.26	1.26	1.47
		36 - 48	16.59	8.48	1.28	1.25
		48 - 60	15.22	7.99	1.30	1.13
		60 - 72	14.94	7.96	1.30	1.09
"	"	0 - 12	24.2	12.5	1.22	1.71
		12 - 24	24.3	12.6	1.22	1.71
		24 - 36	22.7	11.8	1.23	1.61
		36 - 48	19.6	10.5	1.25	1.37
		48 - 60	21.6	10.3	1.24	1.69
		60 - 72	21.6	10.7	1.24	1.62
Silty Clay Loam	San Benito	0 - 12	31.47	16.70	1.19	2.11
		12 - 24	30.20	15.75	1.19	2.06
		24 - 36	29.10	15.16	1.20	2.01
"	Santa Barbara	0 - 6	15.85	7.64	1.29	1.27
		12 - 40	15.66	8.06	1.29	1.18
		48 - 60	21.90	10.58	1.24	1.68
"	Santa Clara	6 - 24	21.84	12.02	1.24	1.46
(Brown says:		24 - 72	16.99	8.91	1.28	1.24
Campbell Silty		72 - 96	10.37	5.87	1.34	0.72
Clay Loam)						
Silty Clay Loam	Solano	0 - 16	25.54	13.37	1.21	1.77
		16 - 32	25.31	13.12	1.21	1.77
		32 - 48	24.71	12.96	1.22	1.72
"	"	0 - 16	24.74	13.08	1.22	1.71
		16 - 32	26.86	11.71	1.21	2.20
		32 - 48	26.58	12.99	1.21	1.97
"	"	0 - 16	25.99	12.53	1.21	1.95
		16 - 32	26.19	13.68	1.21	1.82
		32 - 48	24.57	13.06	1.22	1.69
"	"	0 - 16	17.48	9.23	1.27	1.26
		16 - 32	15.09	8.98	1.29	0.95
		32 - 48	20.00	9.98	1.25	1.50
"	"	0 - 16	21.85	11.88	1.23	1.47
		16 - 32	21.03	11.19	1.24	1.46
		32 - 48	22.30	12.49	1.23	1.45

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
		YOLO (continued)				
Silty Clay Loam	Solano	0 - 16	23.85	12.46	1.23	1.68
		16 - 32	25.01	13.85	1.21	1.62
		32 - 48	25.71	13.87	1.21	1.72
"	"	0 - 16	23.74	12.06	1.23	1.72
		16 - 32	20.11	10.37	1.25	1.46
		32 - 48	21.24	10.41	1.24	1.61
"	"	0 - 16	22.36	12.52	1.23	1.45
		16 - 32	23.48	13.20	1.22	1.50
		32 - 48	23.80	11.85	1.22	1.75
Heavy Clay Loam	Santa Clara	0 - 24	19.69	10.50	(1.25)	1.38
		24 - 48	23.11	12.42	(1.23)	1.58
		48 - 72	19.21	11.18	(1.25)	1.20
"	"	0 - 24	16.28	7.33	(1.28)	1.37
		24 - 48	22.64	12.00	(1.23)	1.57
		48 - 60	23.56	13.39	(1.23)	1.50
Clay Loam	Los Angeles	0 - 30	22.28	12.59	1.24	1.44
		30 - 60	24.78	12.64	1.22	1.78
"	"	0 - 36	27.15	13.78	1.21	1.94
		36 - 72	25.27	12.78	1.22	1.83
"	"	0 - 36	24.91	11.30	1.22	1.99
		36 - 72	27.58	14.08	1.20	1.94
"	"	0 - 12	22.03	12.04	1.24	1.49
(Heavy phase)		12 - 36	24.77	12.48	1.22	1.80
		36 - 60	26.06	14.85	1.21	1.63
Clay Loam	San Benito	0 - 12	24.93	10.90	1.22	2.05
		12 - 24	27.16	11.72	1.21	2.24
		24 - 36	29.01	12.29	1.20	2.42
		36 - 48	34.00	14.57	1.18	2.75
		48 - 60	24.63	10.01	1.22	2.14
		60 - 72	24.33	9.33	1.22	2.20
		72 -108	17.54	7.37	1.27	1.55
"	"	108 -144	15.37	6.52	1.29	1.37
"	Santa Clara	6 - 30	25.69	14.34	1.21	1.65
		30 - 48	24.24	13.25	1.22	1.61
		48 - 72	17.00	9.57	1.27	1.14
		72 - 84	26.79	14.25	1.21	1.82
		84 - 96	35.99	16.94	1.17	2.67

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
Clay Loam	Santa Clara	6 - 12	24.40	14.97	(1.22)	1.38
		12 - 24	25.65	14.64	(1.21)	1.60
		24 - 48	22.19	13.05	(1.24)	1.36
		48 - 72	16.08	9.35	(1.29)	1.04
"	"	6 - 12	22.27	12.02	1.24	1.51
		12 - 24	28.62	16.37	1.20	1.76
		24 - 48	24.55	15.34	1.22	1.31
		48 - 72	24.59	14.33	1.22	1.37
"	"	6 - 18	29.96	17.72	1.19	1.75
		18 - 30	30.61	17.48	1.18	1.86
		40 - 54	29.19	18.54	1.19	1.52
		60 - 76	25.57	14.33	1.22	1.65
"	"	6 - 18	25.74	14.03	1.22	1.72
		18 - 30	29.80	16.67	1.19	1.88
		40 - 54	25.19	15.22	1.22	1.43
		60 - 76	24.26	13.78	1.22	1.53
"	"	6 - 18	29.79	18.10	1.19	1.67
		18 - 30	30.66	18.18	1.19	1.78
		40 - 54	27.02	14.39	1.21	1.83
		60 - 76	25.80	14.68	1.22	1.63
"	"	6 - 18	23.53	12.92	1.23	1.57
		18 - 30	30.58	16.92	1.19	1.95
		40 - 54	25.00	14.90	1.22	1.48
		60 - 76	22.68	12.70	1.23	1.40
Clay	Yolo	0 - 12	26.16	13.05	1.21	1.90
Clay Adobe	Santa Clara	6 - 12	28.53	17.33	1.20	1.61
		12 - 24	27.55	17.97	1.20	1.38
		24 - 48	23.96	13.55	1.22	1.52
		48 - 72	25.92	15.31	1.21	1.54
Adobe	"	0 - 30	25.12	15.48	1.22	1.42
		30 - 42	28.62	15.40	1.20	1.91
		42 - 54	25.20	13.80	1.22	1.67
		54 - 72	24.60	16.48	1.22	1.18
		72 - 84	23.02	15.55	1.23	1.11
			YORKVILLE			
Loam	Mendocino	0 - 5	18.2	8.5	(1.8)	2.10
		5 - 11	18.4	9.5	(1.7)	1.82
		11 - 30	22.8	12.0	(1.9)	2.46
		30 - 42	22.2	---	(2.0)	1.90
		42 - 52	19.8	---	(2.0)	1.68

Type	County	Depth Inches	F.C.	P.W.P.	Est. Bulk Density	In. Avail. Water/Ft. Depth
			YORKVILLE (continued)			
Clay Loam	Lake	0 - 8	18.7	7.5	(1.8)	2.42
		8 - 15	21.3	12.2	1.24	0.98
		15 - 27	21.4	11.1	1.24	1.53
		27 - 41	18.6	9.5	1.26	1.38
		41 - 49	16.8	8.6	1.28	1.26
			ZACA			
Clay	Stanislaus	0 - 6	40.3	---	(1.7)	3.30
		6 - 10	39.0	---	(1.7)	3.43
		10 - 16	41.5	---	(1.3)	3.88
		16 - 30	---	---	(1.3)	3.20
		30+	21.5	---	(1.5)	1.67
			ZAMORA			
Loam	Glenn	0 - 20	22.2	11.7	1.23	1.58
		20 - 30	25.0	14.4	1.22	1.54
		30 - 60	25.3	14.6	1.21	1.63
"	Contra Costa	0 - 11	21.11	12.85	1.24	1.23
		12 - 30	23.51	15.01	1.23	1.25
		33 - 82	15.00	9.46	1.30	0.86
Silty Clay Loam	Solano	0 - 16	25.49	13.73	1.21	1.71
		16 - 32	24.43	14.65	1.22	1.43
		32 - 48	28.59	15.31	1.20	1.91
Clay Loam	"	0 - 16	23.81	12.39	1.22	1.67
		16 - 32	24.27	13.30	1.22	1.61
		32 - 48	23.89	12.54	1.22	1.66
"	"	0 - 16	25.08	13.12	1.22	1.75
		16 - 32	25.47	14.05	1.21	1.66
		32 - 48	26.73	14.64	1.21	1.76
"	Contra Costa	0 - 12	22.6	11.30	1.23	1.67
		12 - 24	21.2	10.01	1.24	1.67
		24 - 36	20.9	10.34	1.24	1.57
		36 - 48	20.9	10.49	1.24	1.55
		47 - 60	24.7	12.47	1.22	1.80
		60 - 72	22.6	11.48	1.23	1.64
			ZANONE			
---	Humboldt	0 - 8	29.2	---	(1.3)	2.07
		8 - 15	28.1	---	(1.4)	1.95
		15 - 21	24.0	---	(1.6)	2.11
		21 - 28	22.9	---	(1.8)	2.95
		28 - 53	25.9	---	(1.9)	2.23
		53 - 60	23.9	---	(2.0)	2.45