

UNIVERSITY OF MAINE

THE MAINE AGRICULTURAL EXPERIMENT STATION

ORONO, MAINE

**Physical Properties and Moisture Relationships of
Some Representative Maine Soil Types**

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Agricultural Research Service

United States Department of Agriculture

Bulletin T2
Technical Series

July
1962

BULLETIN T2

PHYSICAL PROPERTIES AND MOISTURE RELATIONSHIPS OF SOME REPRESENTATIVE MAINE SOIL TYPES

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Soil physical properties determine to a large extent the type of soil management practices followed in a given area. One of the physical characteristics most commonly used by the agriculturist is the available water-holding-capacity (AWC) of a soil. With the increase in use of irrigation in the Northeast, it becomes necessary to obtain more accurate methods for estimating irrigation requirements. Knowledge of the available water-holding-capacity of a soil can be very useful in making more reliable estimates.

The available water-holding-capacity of a soil is influenced by the texture, organic matter content, mineralogical components, and structure of the soil. For mineral soils in the Northeast States, texture is probably the most significant factor affecting soil water retention characteristics. Hence, if the effect of particle size distribution on the water retention characteristics of a given group of soils is known, soil texture can then be an effective measure for estimating the available water-holding-capacity of the soil.

A number of investigators correlated available soil moisture with texture, organic matter and capillary porosity. Jamison and Kroth (6),³ Hill (4), Lund (7) and Bartelli and Peters (1) found a significant positive correlation between available water and silt content. Lund obtained a negative correlation between sand and available water. Although there have been reports (4, 6) of correlation between organic matter and available water, the small coefficient does not justify using this relationship.

The objective of the present study was to determine physical properties of key agricultural soils with major emphasis on soil moisture characteristics and on the relation of soil textural components to available moisture holding capacity.

¹ Contribution of the Soil and Water Conservation Research Division, Agricultural Research Service, USDA, Orono, Maine, in cooperation with the Maine Agricultural Experiment Station, Orono, Maine.

² Soil Scientists, Soil and Water Conservation Research Division, Agricultural Research Service, United States Department of Agriculture.

Acknowledgements are made to Dr. Harold E. Young, University of Maine, for statistical assistance and to Stephen H. Green and Hobart W. Finnemore for aid in sampling and laboratory determinations.

Acknowledgment is also made to the Computation Center at Massachusetts Institute of Technology, Cambridge, Mass., where statistical analysis was performed by the use of the IBM 709 computer.

³ Numbers in parentheses refer to Literature Cited, p. 8.

SOILS STUDIED

The soils were selected in cooperation with the Agronomy Department, Maine Agricultural Experiment Station, and the Soil Conservation

TABLE 1. Soils studied in Maine

Soil Type	Location	Maine Field Number
Adams Loamy Sand, Silty Clay Substrata	Portland	M- 6-59
Adams Loamy Sand	Saco	M- 8-59
Adams Loamy Fine Sand	Skowhegan	M-10-60
Allagash Sandy Loam, Shallow to Sand	Skowhegan	M-11-60
Allagash Fine Sandy Loam	Greenbush	M- 1-59
Bangor Silt Loam	Dexter	M- 4-59
Bangor Silt Loam	Newport	M- 7-58
Bangor Silt Loam	Madison	M-23-60
Buxton Silt Loam	Cumberland Center	M- 9-59
Buxton Silt Loam	Brewer	M-12-59
Buxton Silt Loam	Skowhegan	M-14-60
Buxton Silt Loam	Bradley	M- 4-58
Caribou Gravelly Loam	Caribou	M- 8-60
Caribou Gravelly Silt Loam	Presque Isle	M-13-59
Colton Loamy Fine Sand	Orono	M- 1-58
Colton Sandy Loam	Columbia	M- 1-60
Colton Sandy Loam	Columbia	M- 2-60
Conant Silt Loam	Caribou	M- 3-60
Conant Silt Loam	Caribou	M- 5-60
Daigle Silt Loam	Perham	M-27-60
Daigle Silt Loam	Perham	M-31-60
Dixmont Silt Loam	Corinna	M- 3-59
Dixmont Silt Loam	Cornville	M-15-60
Easton Silt Loam	Caribou	M- 4-60
Easton Silt Loam	Caribou	M- 6-60
Hadley Silt Loam	Norridgewock	M-19-60
Hadley Silt Loam	Norridgewock	M-20-60
Hinckley Sandy Loam	Sanford	M- 7-59
Mapleton Shaly Silt Loam	Fort Fairfield	M- 9-60
Monarda Silt Loam	Corinna	M- 5-59
Monarda Silt Loam	Cornville	M-16-60
Ondawa Fine Sandy Loam	Milo	M-32-60
Perham Gravelly Silt Loam	Smyrna	M-26-60
Perham Gravelly Silt Loam	Perham	M-30-60
Plaisted Loam	Old Town	M- 2-58
Plaisted Loam	Orono	M- 2-59
Plaisted Loam	Hartland	M-24-60
Salmon Silt Loam	Anson	M-21-60
Salmon Silt Loam	Madison	M-22-60
Scantic Silt Loam	Skowhegan	M-13-60
Stetson Gravelly Loam	Caribou	M-11-59
Stetson Gravelly Loam	Fort Fairfield	M- 7-60
Suffield Silt Loam	Old Town	M- 5-58
Suffield Silt Loam	Old Town	M- 6-58
Suffield Silt Loam	Falmouth	M-10-59
Suffield Silt Loam	Skowhegan	M-12-60
Suncook Loamy Sand	Strong	M-17-60
Suncook Loamy Sand	Farmington	M-18-60
Thorndike Silt Loam	Garland	M- 3-58
Thorndike Shaly Silt Loam	St. Albans	M-25-60
Thorndike Shaly Loam	Perham	M-29-60

Service. A total of 51 profiles, representing 23 soil series and 29 soil types, was sampled (Table 1). For a number of the soil types, samples were taken from different locations to afford a measure of variability within soil types.

Soil samples were taken only from crop land. *The profile descriptions for each site were given in a previous publication (3).*

METHODS AND PROCEDURE

Sampling procedure

Undisturbed soil samples were taken in triplicate from each major horizon. The samples were taken in thin-walled rings approximately two inches in diameter and one inch high with a modified Lutz-type core sampler. A quantity of disturbed soil was also taken from each horizon location from which the cores were extracted.

Laboratory procedure

Available water-holding-capacity (AWC) was determined for each horizon from the moisture retention characteristics. Core samples were placed on a ceramic pressure plate apparatus and the moisture content of samples in equilibrium with 1/10, 1/3 and 3/3 atmosphere tension was determined. The higher tensions of 5 and 15 atmospheres were obtained by placing disturbed samples in a pressure membrane apparatus. The available water was considered to be that difference between the amount retained at 1/3 atmosphere tension (assumed to be field capacity) and the 15-atmosphere value (wilting point). To convert to a volume basis, the moisture content by weight was multiplied by the bulk density and that value is presented in the appended tables as *inches of water/inch of soil*. Bulk density, or the weight of a unit volume of dry soil, was calculated as the average density of the three core samples. Cores that contained large stones or large root channels were discarded. It was impossible to obtain core samples from some horizons; for these horizons the density was determined on clods.

A number of profiles contained a large percentage of coarse fragments above 4 mm. These fragments were not a part of the sample used in the moisture retention determinations. Consideration must be given to the amount of coarse fragments present in a given site and the data corrected accordingly.

The percentages of sand, silt and clay were determined by the hydrometer method (2). Samples containing more than one percent of organic matter were treated with hydrogen peroxide prior to analysis. The subdivisions of the sand fraction were obtained by wet sieving the sample. Organic matter content of the soil horizons was determined by rapid chromic acid titration (8).

RESULTS AND DISCUSSION

Physical properties of these soils are tabulated by soil type in the appendix. The textural classifications that appear in the soil-type nomenclature were designated in the field and hence there may be a discrepancy with the texture obtained in the laboratory.

The variability of available water-holding-capacity within a soil type for those soil types sampled from two or more locations is shown in Table 2. In two-thirds of the comparisons the available water-holding capacity was in good agreement. In a few cases, notably, Buxton silt loam, Dixmont silt loam, Hadley silt loam, Plaisted loam, Salmon silt loam, and Suffield silt loam, the agreement was poor. In these six soil types the wide discrepancies between samples may be associated with marked differences in the texture of the soil profile. For example two Suffield silt loam samples showed values of .24 and .28 AWC and the other two contained .15 inches/inch for the 30-inch depth. The two samples high in AWC were high in silt content, whereas the low AWC samples contained considerably more clay below a depth of 14 inches. These latter samples were designated in the laboratory to be silty clay

TABLE 2. -Variability of available water-holding-capacity within soil types.

Soil type	Average AWC for 30-inch depth ¹				Remarks
	in./in.				
	Locations				
	A	B	C	D	
Adams loamy sand	.06	.03	.07	—	
Allagash sandy loam	.08	.11	—	—	
Bangor silt loam	.19	.19	.24	—	
Buxton silt loam	.18	.18	.12*	.22	*Lab. designation silty clay loam
Caribou gravelly loam } Caribou grav. silt loam }	.21	.25	—	—	Lab. designation for both samples is loam
Colton sandy loam	.06	.04	—	—	
Conant silt loam	.21	.18	—	—	
Daigle silt loam	.21	.16	—	—	
Dixmont silt loam	.16*	.22	—	—	*High in clay
Easton silt loam	.12	.11	—	—	
Hadley silt loam	.21	.30*	—	—	*Very high in silt
Monarda silt loam	.24	.22	—	—	
Perham grav. silt loam	.21	.22	—	—	
Plaisted loam	.17	.15	.27*	—	*High in silt content. Lab. des. a silt loam
Salmon silt loam	.14 [†]	.28	—	—	*Lower horizon high in sand and low in silt
Stetson gravelly loam	.09	.11	—	—	
Suffield silt loam	.24*	.28**	.15	.15	*High in sand; low in clay **Very high in silt
Suncook loamy sand	.08	.09	—	—	
Thorndike silt loam	.16	.22	—	—	

¹ Depth to 30 inches or pan or bedrock

loams rather than silt loams. In another example, the discrepancy between the two Salmon silt loam samples may be partially explained by the high sand content, 98.7 percent, in the 20 to 30 inch depth of the Anson sample.

Correlation coefficients indicating the relation of the textural components to the moisture characteristics of 216 soil horizons are presented in Table 3. Available water capacity (AWC) was better correlated with silt than with either sand or clay content. A multiple correlation of AWC vs. silt, sand and clay did not materially improve the correlation as compared to that of AWC vs. silt.

The relation between the silt content of the soil and AWC for all horizons of all soils studied is shown in Figure 1. Soils high in silt generally are high in AWC. The relationship of AWC vs. silt for the Alluvial soils is shown in Figure 2. Although the total number of samples was small it appears that the relationship is much better than that obtained for all soils. Figure 3 shows the relation between silt and AWC for all Podzol soils. The relationship here is little better than for all soils. A few soils of the Brown Podzolic and Low Humic Gley groups were included in the study, but not enough to determine the relation between silt content and AWC.

Some of the more significant relationships between particle size and moisture retention characteristics are presented in Figures 4 to 7. The data in figure 4 show a good linear relationship between the silt fraction and water retained in the soil against $\frac{1}{3}$ atm. tension. The relationship between silt and the 15-atm. percentage, however, was not as good (Figure 5). The reverse was true for the clay fraction. The best linear correlation was obtained between the clay fraction and the 15-atm. percentage (Figure 6), whereas the correlation between clay and the $\frac{1}{3}$ -atm. percentage was not as high (Figure 7). This would indicate, therefore, that the silt fraction was the dominant textural component affecting soil moisture at low tension levels and the clay fraction was dominant at high tension levels. Even though the correlations between silt and the 15-atm. percentage, and between clay and the $\frac{1}{3}$ -atm. percentage, were statistically significant, there was too much variation to be of practical significance.

The relationship between texture and water retention characteristics of soils described above can be an extremely useful tool in estimating the available water-holding-capacity of soils if the limitations are understood. The results presented here are representative of Maine mineral soils and cannot be extrapolated to other areas or to soils high in organic matter. As previously mentioned, stoniness was not considered in the data presented here. Therefore, a correction must be made for this factor when estimating the water-holding-capacity of the soil. Jamison (5)

TABLE 3. -Correlation coefficients between AWC and the textural components for all horizons of all soils.

Soil property	r
AWC ¹ vs.	
Silt	0.785**
Sand	-0.694**
Clay	0.253**
Organic matter	0.282**

¹ Available water capacity

** Significant at 1% level

pointed out that soil structure affects the amount of water retained at low tensions. This would, therefore, affect the values for the $\frac{1}{3}$ -atm. percentage under field conditions, and consequently affect the available water holding capacity. Other factors which need to be considered are zones of impedance, poor surface drainage and internal drainage. As methods of defining soil structure become available, it may be possible to estimate the available water holding capacity from a combination of soil structure and texture determinations.

When the above limitations are taken into consideration, soil texture (predominantly the silt content), can be a useful tool in estimating the water-holding-capacity of the soil.

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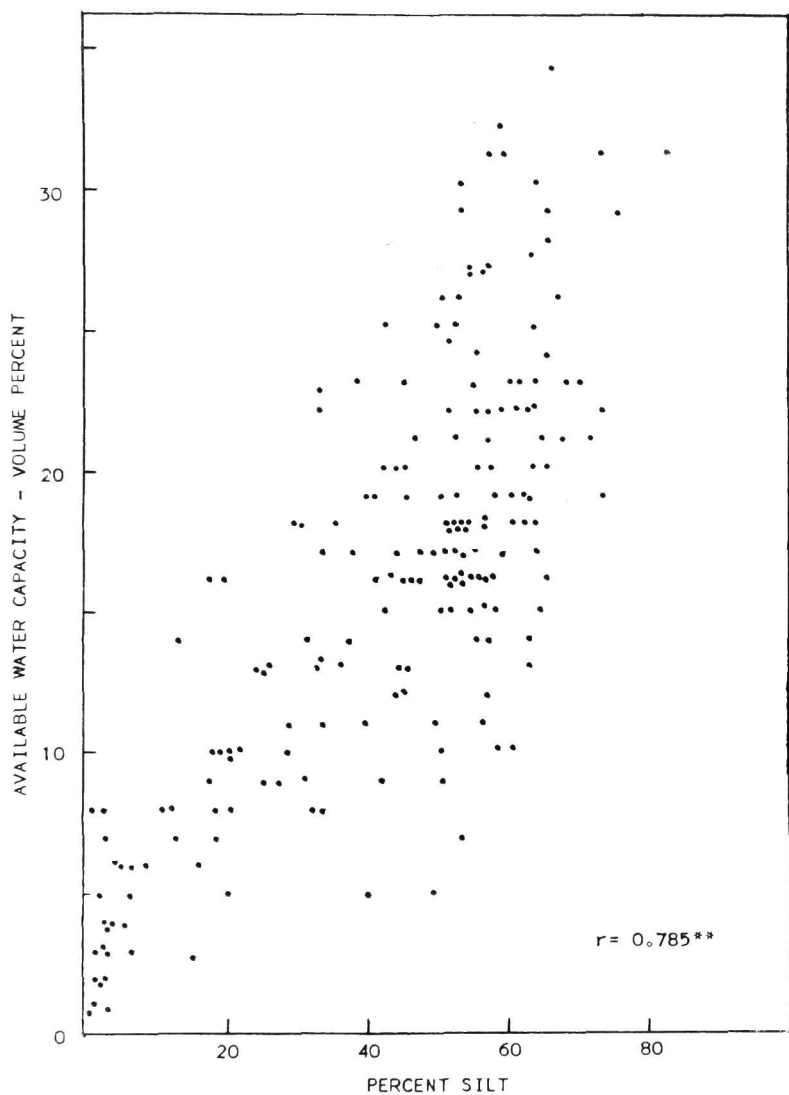


Figure 1. Available water capacity as a function of silt content.

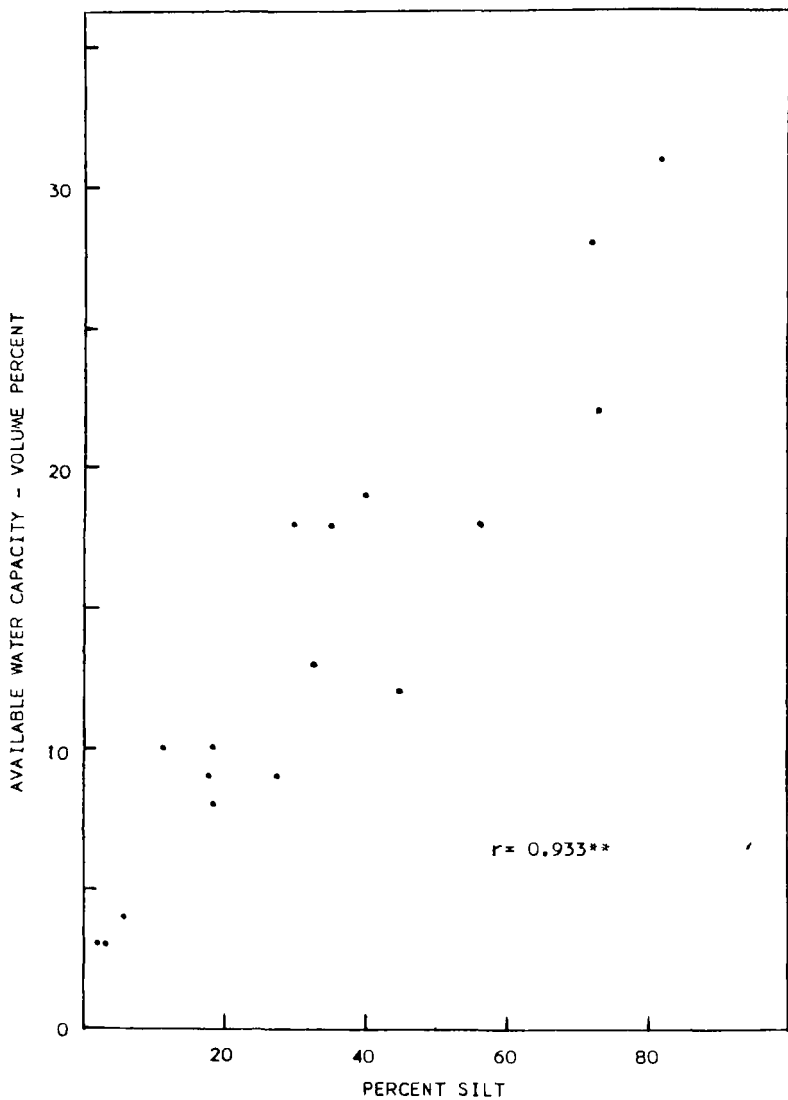


Figure 2. Available water capacity as a function of silt for the Alluvial soils.

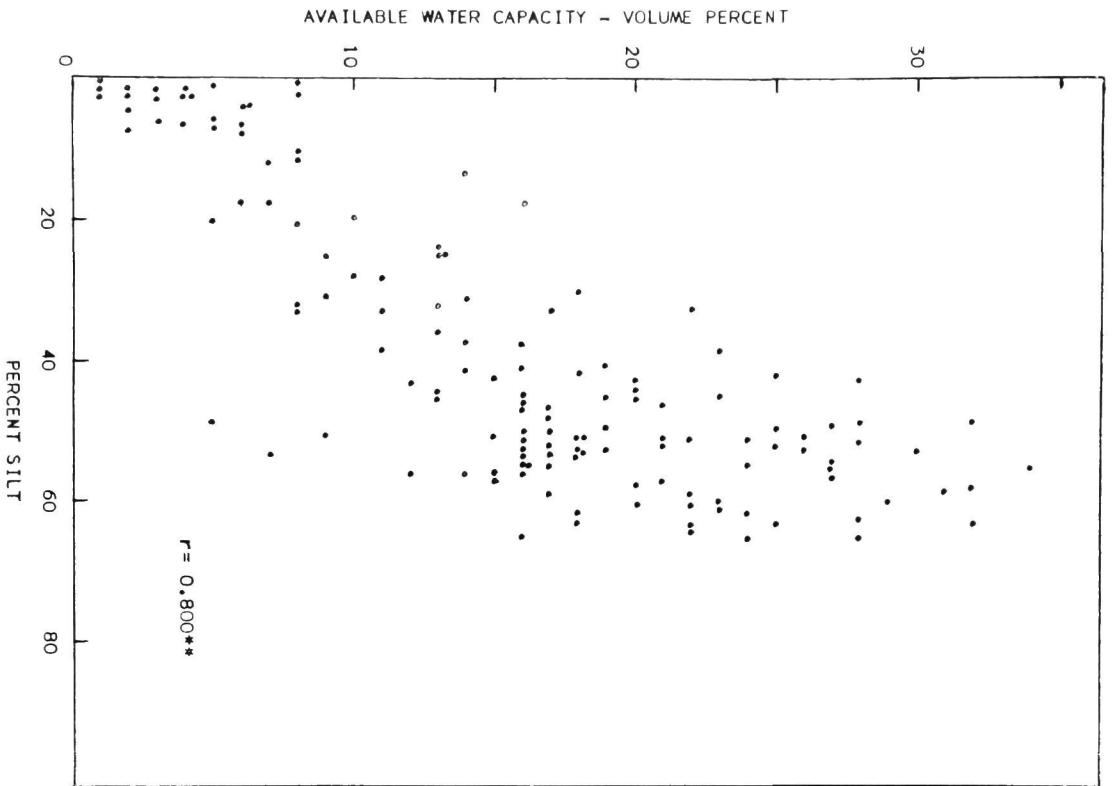


Figure 3. Available water capacity as a function of silt for the Podzol soils.

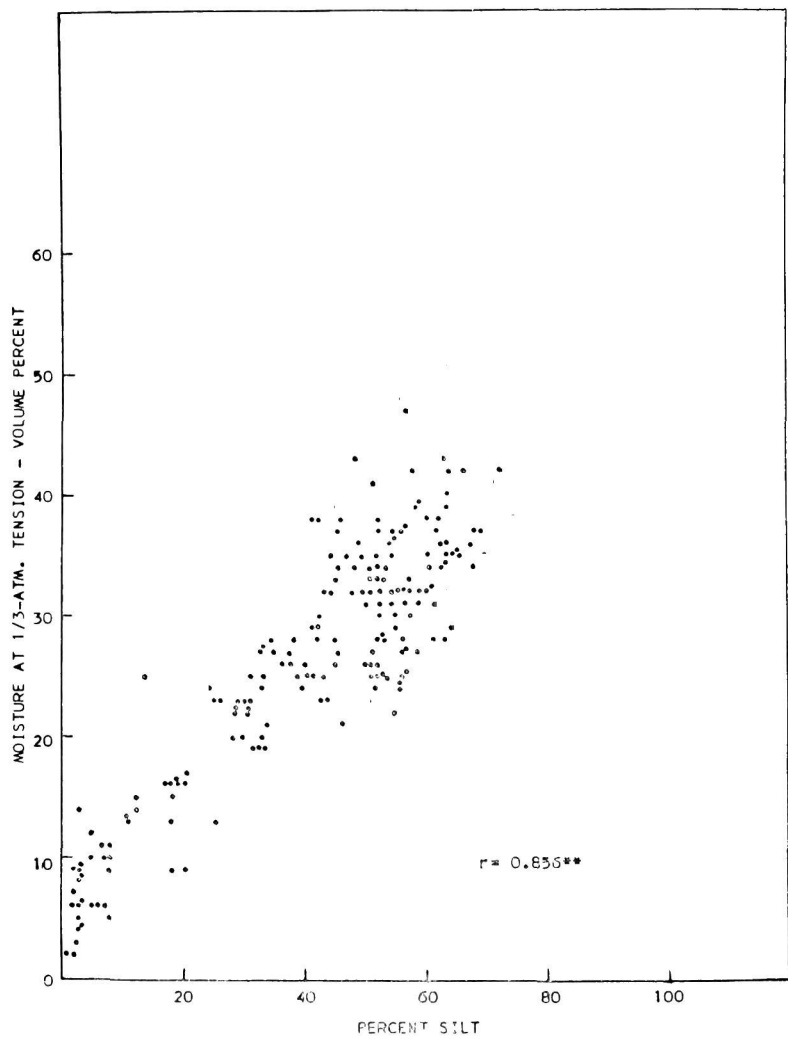


Figure 4. 1/3-atm. percentage vs a function of silt content.



Figure 5. 15-atm. percentage as a function of silt content.

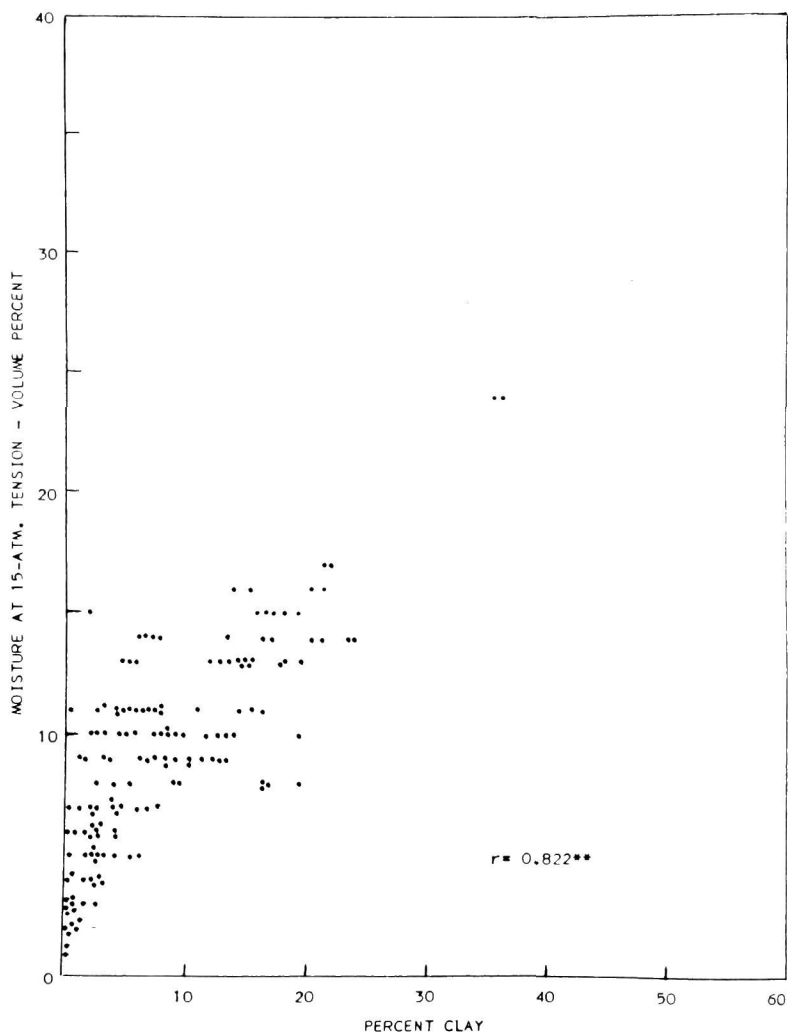


Figure 6. 15-atm. percentage as a function of clay content.

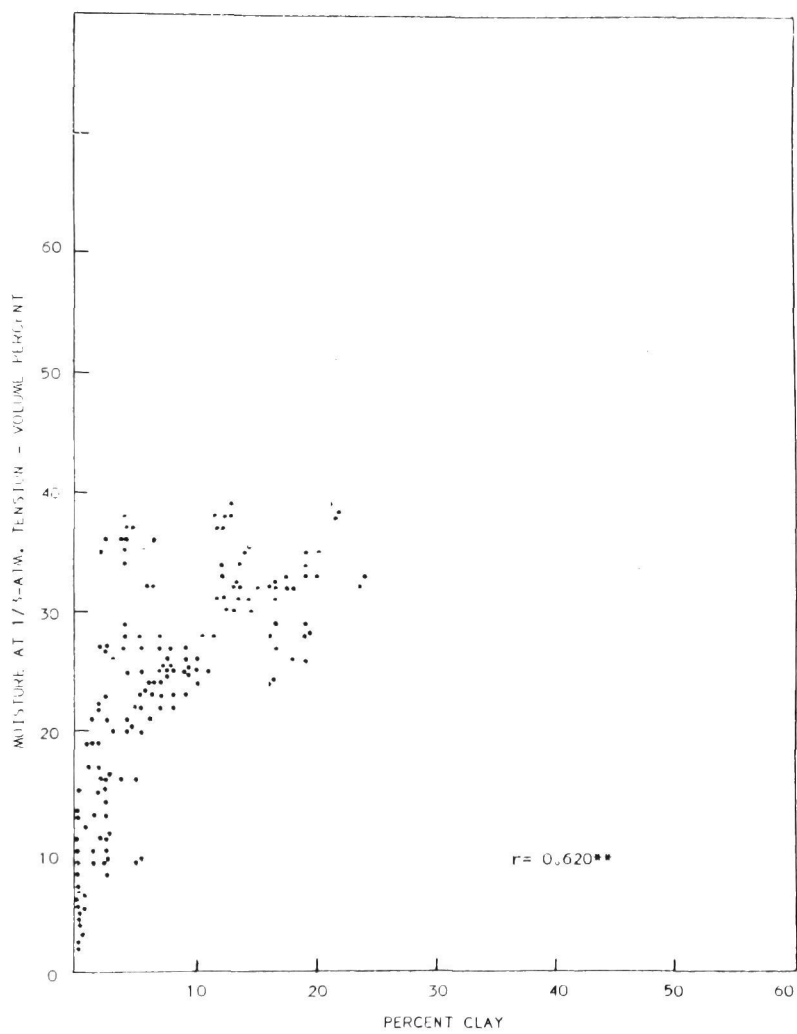


Figure 7. 1/3-atm. percentage as a function of clay content.

Adams Loamy Sand, Silty Clay Substrata

M-6-59

Portland, Cumberland County

Horizon	Depth Inches	Texture	Sand					Total	Silt %	Clay %	Moisture content		Available moisture		
			Diameter in mm.								1/3 atm.	15 atm.	Per inch of soil Inch	Bulk density Gm/cc	Organic matter %
			2-1	1-.5	.5-.25	.25-.1	.1-.05				% by weight				
A _{1p}	0- 7	Sandy loam	4.9	9.9	36.2	11.8	6.7	69.5	24.0	6.5	19.8	8.9	0.13	1.23	3.3
B ₂₁	7-12	Sand	1.3	12.9	58.1	16.7	1.5	90.5	7.0	2.5	7.3	3.8	0.05	1.38	0.6
B ₂₂	12-24	Sand	1.3	18.2	59.5	14.2	2.8	96.0	1.5	2.5	4.5	2.3	0.03	1.34	0
D	24-28+	Silty clay	0.0	0.0	2.4	1.4	0.0	3.8	49.2	47.0	21.5	18.3	0.05	1.57	0.1

Adams Loamy Sand

M-8-59

Saco, York County

A _{1p}	0- 4	Sand	0.7	6.1	42.5	36.7	9.9	95.9	1.6	2.5	7.2	3.8	0.04	1.31	1.7
B ₂₁	4-10	Sand	0.2	5.8	41.7	38.6	7.5	93.8	6.1	0.1	8.5	4.8	0.05	1.31	0.8
B ₂₂	10-18	Sand	0.2	5.9	47.2	37.8	6.4	97.5	2.5	0	4.0	2.1	0.03	1.45	0.4
B ₂₃	18-24	Sand	0.1	5.8	55.1	30.2	6.3	97.5	2.5	0	3.1	1.1	0.02	1.47	0
C	34-40+	Sand	0.2	7.3	53.8	32.4	3.8	97.5	2.0	0.5	2.2	0.5	0.02	1.42	0

Adams Loamy Fine Sand

M-10-60

Skowhegan, Somerset County

Horizon	Depth Inches	Texture	Sand					Total	Silt %	Clay %	Moisture content		Available moisture		
			Diameter in mm.								13 atm.	15 atm.	Per inch of soil Inch	Bulk density Gm/cc	Organic matter %
			2-1	1-.5	.5-.25	.25-.1	.1-.05								
A _p	0-10	Sandy loam	0.2	20.5	28.9	15.7	5.9	71.2	17.5	11.3	24.5	10.2	0.16	1.16	4.6
B ₂	10-12	Loamy sand	0.0	16.3	36.5	17.0	8.9	78.7	20.3	1.0	13.8	7.5	0.08	1.21	3.1
B ₃	12-15	Sand	0.0	31.3	37.2	17.0	6.8	92.3	5.2	2.5	4.6	3.1	0.02	1.37	1.1
C	15-36	Sand	0.0	20.7	57.2	15.2	4.4	97.5	2.5	0	2.8	1.8	0.01	1.46	0.4

Allagash Sandy Loam, Shallow to Sand

M-11-60

Skowhegan, Somerset County

A _p	0- 9	Sandy loam	4.6	22.3	16.6	14.5	7.0	65.0	28.2	6.8	18.9	9.9	0.11	1.16	5.4
B ₂₁	9-11	Sandy loam	2.1	19.5	16.3	14.3	7.3	59.5	33.0	7.5	24.9	13.5	0.11	1.02	6.1
B ₂₂	11-15	Sandy loam	2.5	25.4	19.1	15.5	7.0	69.5	30.5	5.0	19.7	11.4	0.09	1.12	4.7
B ₃	15-19	Sand	4.8	36.3	23.7	14.7	10.5	90.0	7.5	2.5	8.4	5.2	0.04	1.25	1.9
C	19-36	Sand	3.3	38.0	35.0	16.6	2.1	95.0	2.5	2.5	5.7	2.9	0.04	1.42	0.8

Allagash Fine Sandy Loam

M-1-59

Greenbush, Penobscot County

Horizon	Depth Inches	Texture	Sand					Total	Silt %	Clay %	Moisture content		Available moisture		
			Diameter in mm.								1/3 atm.	15 atm.	Per inch of soil Inch	Bulk density Gm/cc	Organic matter %
			2-1	1-.5	.5-.25	.25-.1	.1-.05								
A _p	0- 9	Sandy loam	0.0	0.4	1.8	31.4	27.9	61.5	31.0	7.5	22.5	9.8	0.14	1.13	3.1
B ₂₁	9-15	Sandy loam	0.0	0.2	1.4	29.4	28.5	59.5	32.7	7.8	24.1	9.0	0.17	1.10	1.5
B ₂₂	15-20	Sandy loam	0.0	0.2	1.7	35.2	32.9	70.0	24.6	5.4	18.5	6.4	0.13	1.09	1.0
C ₁	20-42	Loamy sand	0.0	0.3	3.5	38.9	32.3	75.0	20.0	5.0	6.6	2.7	0.05	1.34	0.3
C ₂	42-52+	Loamy sand	0.0	0.2	1.5	46.9	28.6	77.2	17.8	5.0	7.2	2.7	0.06	1.26	0.2

Bangor Silt Loam

M-4-59

Dexter, Penobscot County

A _p	0- 5	Silt loam	1.7	4.9	4.0	6.9	7.5	25.0	61.5	13.5	28.8	11.5	0.18	1.09	3.9
B ₂₁	5-10	Silt loam	2.3	5.9	5.0	7.4	8.9	29.5	58.5	12.0	29.1	8.7	0.22	1.07	3.0
B ₂₂	10-18	Silt loam	1.7	6.0	6.8	10.1	14.4	39.0	53.5	7.5	18.1	5.0	0.18	1.37	1.4
C ₁	18-32	Silt loam	0.7	5.3	5.5	9.6	12.9	34.0	56.0	10.0	13.7	4.0	0.18	1.84	0.1
C ₂	32-40+	Silt loam	1.5	4.5	4.7	7.8	10.5	29.0	56.0	15.0	15.7	6.1	0.16	1.74	0.3

Bangor Silt Loam

M 7-58

Newport, Penobscot County

Horizon	Depth Inches	Texture	Sand					Total	Silt %	Clay %	Moisture content		Available moisture		
			Diameter in mm.								15 atm.	Per inch of soil	Bulk density Gm/cc	Organic matter %	
			2-1	1-.5	.5-.25	.25-.1	.1-.05								3 atm.
A _p	0- 6	Silt loam	4.8	5.0	7.9	6.2	9.3	33.2	54.8	12.0	32.1	11.5	0.24	1.16	5.3
B ₂₁	6-12	Silt loam	10.3	6.8	8.7	6.5	7.2	39.5	52.5	8.0	21.4	8.1	0.16	1.19	2.0
B ₂₂	12-20	Silt loam	9.2	5.7	8.3	6.6	10.2	40.0	50.0	10.0	19.5	6.6	0.17	1.31	0.4
C ₁	20-34	Silt loam	7.6	5.4	8.9	7.3	10.8	40.0	51.0	9.0	18.5	6.0	0.18	1.46	0.2
C ₂	34-40+	Silt loam	4.9	2.8	4.7	6.8	9.8	29.0	60.0	11.0	20.6	5.8	0.23	1.53	0.1

Bangor Silt Loam

M-23-60

Madison, Somerset County

A _p	0- 8	Silt loam	0.4	3.5	5.1	7.8	17.2	34.0	57.0	9.0	40.3	13.6	0.21	0.76	5.8
B ₂₁	8-12	Silt loam	9.5	4.6	6.5	10.1	0.3	31.0	65.0	4.0	28.8	8.9	0.24	1.20	2.8
B ₂₂	12-17	Silt loam	1.2	5.1	8.2	10.6	7.9	33.0	65.0	2.0	29.5	6.0	0.28	1.20	1.7
B ₃	17-23	Silt loam	0.1	2.4	6.4	9.1	10.0	28.0	68.0	4.0	22.5	5.0	0.24	1.37	0.9
C	23-36+	Silt loam	2.0	8.0	8.9	11.6	1.5	32.0	64.0	4.0	18.8	4.2	0.23	1.54	0.8

Buxton Silt Loam

M-9-59

Cumberland Center, Cumberland County

Horizon	Depth Inches	Texture	Sand					Total	Silt %	Clay %	Moisture content		Available moisture		
			Diameter in mm.								1/3 atm.	15 atm.	Per inch of soil	Bulk density	Organic matter
			2-1	1-.5	.5-.25	.25-.1	.1-.05								
A _p	0- 4	Silt loam	1.7	2.4	3.8	3.8	3.8	15.5	67.5	17.0	42.3	17.4	0.21	0.86	7.3
B ₂₁	4- 8	Silt loam	1.4	2.1	3.1	4.0	4.9	15.5	69.0	15.5	44.3	17.8	0.22	0.84	3.2
B _{22g}	8-20	Silty clay loam	0.0	0.4	0.8	1.4	5.5	8.1	63.4	28.5	23.7	12.6	0.17	1.49	0.4
C _g	20-26+	Silty clay	0.0	0.0	0.1	0.7	0.0	0.8	51.2	48.0	30.0	21.8	0.15	1.72*	0.4

* Clods

Buxton Silt Loam

M-12-59

Brewer, Penobscot County

A _p	0- 8	Silt loam	1.0	2.0	1.0	4.9	11.6	20.5	65.5	14.0	26.8	12.0	0.20	1.29	3.7
B _{21g}	8-13	Silt loam	0.5	1.5	0.8	6.1	17.1	26.0	59.0	15.0	22.6	9.1	0.19	1.40	0.8
B _{22g}	13-18	Silt loam	0.0	0.2	0.3	5.6	13.4	19.5	57.5	23.0	18.3	8.7	0.16	1.65	0.2
B _{23g}	18-25	Silt loam	0.0	0.1	0.1	1.9	15.9	18.0	54.5	27.5	17.6	8.4	0.16	1.77	0.2
C _{1g}	25-42	Silt loam	0.0	0.0	0.0	0.2	20.8	21.0	53.0	26.0	20.0	8.8	0.18	1.67	0.1
C _{2g}	42-48+	Silt loam	0.0	0.0	0.2	0.9	3.9	4.8	58.7	36.5	25.3	12.8	0.19	1.56	0.1

Buxton Silt Loam

M-14-60

Skowhegan, Somerset County

Horizon	Depth	Texture	Sand					Total	Silt	Clay	Moisture content		Available moisture		
			Diameter in mm.								1/8 atm.	15 atm.	Per inch of soil	Bulk density	Organic matter
			2-1	1-.5	.5-.25	.25-.1	.1-.05								
Inches	%					%	%	%	% by weight		Inch	Gm/cc	%		
A _n	0- 9	Silty clay loam	0.0	1.0	1.4	1.7	0.0	4.1	63.9	32.0	33.1	21.7	0.15	1.26	3.8
B _{21g}	9-11	Silty clay loam	0.1	1.4	1.6	1.7	0.0	4.8	61.7	33.5	32.2	22.0	0.13	1.28	3.5
B _{22g}	11-16	Silty clay loam	0.2	2.1	1.9	2.0	0.0	6.2	62.3	31.5	29.9	19.3	0.14	1.26	1.9
C _{1z}	16-36+	Silty clay loam	0.0	0.8	1.2	1.7	0.0	3.7	60.8	35.5	22.3	15.7	0.10	1.53	0.7

Buxton Silt Loam

M-4-58

Bradley, Penobscot County

A _p	0- 7	Silt loam	0.4	0.7	1.6	7.2	10.1	20.0	68.5	11.5	34.9	10.7	0.28	1.15	4.4
B ₂₁	7-12	Silt loam	0.3	0.6	1.1	5.2	5.6	12.8	74.7	12.5	28.6	6.5	0.29	1.34	1.1
B _{22g}	12-30	Silt loam	0.3	1.6	1.6	25.3	10.7	39.5	51.5	9.0	16.7	4.2	0.18	1.45	0.4
C _z	30-36+	Silty clay loam	0.2	0.1	0.3	1.6	2.3	4.5	68.0	27.5	21.7	9.3	0.19	1.58	0.5

Caribou Gravelly Loam

M-8-60

Caribou, Aroostook County

Horizon	Depth Inches	Texture	Sand					Total	Silt %	Clay %	Moisture content		Available moisture				
			Diameter in mm.								%	%	1/3 atm.	15 atm.	Per inch of soil	Bulk density Gm/cc	Organic matter %
			2-1	1-5	.5-.25	.25-.1	.1-.05										
A _p	0- 7	Loam	2.2	8.7	7.6	10.3	9.7	38.5	45.5	16.0	24.3	10.5	0.20	1.38	4.9		
B ₂₁	7-10	Silt loam	1.3	5.8	5.4	8.4	8.1	29.0	55.0	16.0	39.3	14.2	0.34	1.36*	5.6		
B ₂₂	10-12	Silt loam	2.1	7.9	7.2	9.4	6.4	33.0	53.0	14.0	30.7	10.3	0.30	1.46*	4.4		
A ₂	12-19	Silt loam	3.8	9.7	8.6	9.7	2.7	34.5	51.5	14.0	26.0	8.3	0.28	1.59*	2.6		
B ₂₁	19-34	Silt loam	2.2	8.5	7.2	8.9	6.2	33.0	51.0	16.0	17.5	4.2	0.24	1.82*	0.4		

* Clods

Caribou Gravelly Silt Loam

M-13-59

Presque Isle, Aroostook County

A _p	0- 7	Loam	2.2	7.2	8.2	11.7	3.7	33.0	49.5	17.5	25.2	10.5	0.19	1.28	3.0
B ₂₁	7-11	Loam	1.6	7.7	8.9	13.7	13.1	45.0	42.5	12.5	25.6	8.7	0.20	1.19	2.1
B ₂₂	11-14	Silt loam	1.3	6.5	8.1	11.7	9.4	37.0	50.2	12.8	23.0	7.6	0.26	1.70*	1.5
A ₂	14-18	Loam	2.0	7.6	8.0	9.9	12.5	40.0	44.7	15.3	17.8	7.4	0.23	2.17*	0.8
B ₂₁	18-29	Loam	2.2	7.5	8.0	10.1	4.7	32.5	46.0	21.5	18.3	8.1	0.21	2.09*	0.4
B ₂₂	29-59	Loam	1.8	7.1	7.7	10.7	10.9	38.2	44.2	17.6	17.2	7.3	0.20	2.06*	0.4

* Clods

Colton Loamy Fine Sand

M-1-58

Orono, Penobscot County

Horizon	Depth	Texture	Sand					Total	Silt	Clay	Moisture content		Available moisture		
			Diameter in mm.								1/3 atm.	15 atm.	Per inch of soil	Bulk density	Organic matter
			2-1	1-.5	.5-.25	.25-.1	.1-.05								
	Inches				%		%	%	%	%	% by weight	Inch	Gm/cc	%	
A _p	0-10	Loamy sand	4.0	11.9	39.5	20.3	5.8	81.5	12.0	6.5	11.1	5.1	0.07	1.30	2.4
B _o															
B ₃	10-19	Sand	3.6	12.2	44.0	20.1	8.1	88.0	10.5	1.5	9.4	3.5	0.08	1.35	0.7
C ₁	19-26	Sand	2.1	7.6	50.0	22.7	8.3	90.7	7.8	1.5	6.1	2.4	0.06	1.43	0.4
C ₂	26-31	Sand	14.1	23.4	37.9	16.9	1.2	93.5	6.5	0.0	4.1	1.7	0.03	1.48	0.0
D ₁	31-37+	Sand	19.9	28.1	35.4	15.4	0.0	98.8	1.2	0.0	6.1	1.0	0.08	1.40	0.0

Colton Sandy Loam

M-1-60

Columbia, Washington County

A ₁	0- 3	Sandy loam	8.0	24.1	8.4	6.7	9.3	56.5	36.0	7.5	32.8	17.2	0.13	0.78	10.8
A ₂	3- 4														
B ₂₁	4- 8	Sandy loam	10.4	37.4	11.1	3.7	5.1	67.7	28.0	4.3	18.3	8.9	0.10	1.12	2.6
B ₂₂	8-15	Loamy sand	10.3	48.9	17.3	3.4	6.3	86.2	11.8	2.0	11.2	5.5	0.08	1.30	2.1
B ₂₃	15-22	Sand	34.0	49.3	7.8	3.5	2.9	97.5	2.5	0.0	5.9	2.9	0.04	1.39	0.4
D	22-36+	Sand	47.9	48.0	1.1	0.0	1.7	98.7	1.3	0.0	1.5	1.1	0.01	1.51	0.3

Colton Sandy Loam

M-2-60

Columbia, Washington County

Horizon	Depth Inches	Texture	Sand					Total	Silt %	Clay %	Moisture content		Available moisture		
			Diameter in mm.								1/8 atm.	15 atm.	Per inch of soil	Bulk density	Organic matter
			2-1	1-5	.5-.25	.25-.1	.1-.05								
A _p	1- 5	Loamy sand	1.9	36.8	23.1	7.9	10.0	79.7	17.8	2.5	11.2	5.3	0.07	1.14	1.7
B ₂₁	5- 9	Sandy loam	1.9	37.2	16.9	4.5	0.0	60.5	32.8	6.7	29.9	19.5	0.08	0.81	4.4
B ₂₂	9-13	Sandy loam	2.6	41.4	18.1	2.7	2.4	67.2	32.0	0.8	18.9	10.7	0.08	1.02	2.8
B ₂₃	13-23	Sand	1.7	51.2	31.5	2.3	5.7	92.4	7.6	0.0	3.9	2.6	0.02	1.33	0.5
D	23-29+	Sand	6.6	60.5	26.5	1.8	4.6	100.0	0.0	0.0	1.1	1.0	0.01	1.47	0.2

Conant Silt Loam

M-3-60

Caribou, Aroostook County

A _p	0-11	Silt loam	2.6	7.4	5.5	8.4	7.1	31.0	50.0	19.0	29.4	14.0	0.16	1.05	7.6
B ₂	11-13	Loam	5.2	7.5	6.6	9.1	7.1	35.5	48.0	16.5	25.4	11.9	0.17	1.25	3.7
A _{2g}	13-22	Loam	4.3	11.1	9.7	11.7	9.2	46.0	42.5	11.5	21.0	5.6	0.28	1.83*	1.1
B _{21gm}	22-35	Loam	3.5	8.9	8.1	10.3	8.2	39.0	42.0	19.0	14.4	2.2	0.25	1.98*	0.6

* Clods

Conant Silt Loam

M-5-60

Caribou, Aroostook County

Horizon	Depth Inches	Texture	Sand					Total	Silt %	Clay %	Moisture content		Available moisture		
			Diameter in mm.								13 atm.	15 atm.	Per inch of soil	Bulk density	Organic matter
			2-1	1-.5	.5-.25	.25-.1	.1-.05								
A _p	0-9	Silt loam	1.2	4.2	4.7	6.6	6.3	23.0	56.0	21.0	30.3	19.0	0.12	1.07	7.0
B ₂	9-12	Silt loam	1.5	6.5	6.9	8.1	7.0	30.0	51.0	19.0	23.4	7.6	0.22	1.39	2.2
A ₇ ^{2E}	12-19	Loam	2.4	8.1	7.7	10.1	8.2	36.5	49.5	14.0	20.3	6.0	0.25	1.72*	0.8
B' _{2E} ^{21gm}	19-27	Loam	1.3	6.5	6.9	9.0	6.3	30.0	48.5	21.5	21.6	5.7	0.32	1.99*	0.5
B' _{2E} ^{22gm}	27-35														

* Clods

Daigle Silt Loam

M-27-60

Perham, Aroostook County

A _p	0-10	Silt loam	0.0	1.7	3.9	5.3	7.1	18.0	60.5	21.5	37.8	14.7	0.23	1.00	7.7
B ₂ ^{21E}	10-17	Silt loam	0.6	2.3	2.0	2.7	17.4	25.0	63.0	12.0	27.7	13.2	0.18	1.23	7.0
A ₇ ^{2E}	17-27	Silt loam	1.2	3.4	2.9	3.8	26.7	38.0	51.0	11.0	18.2	6.9	0.16	1.37*	0.7
B' _{2E} ^{21E}	27-36	Loam	0.3	2.4	2.8	3.7	21.8	31.0	45.0	24.0	16.1	8.2	0.16	2.07*	0.4

* Clods

Daigle Silt Loam

M-31-60

Perham, Aroostook County

Horizon	Depth Inches	Texture	Sand						Silt	Clay	Moisture content		Available moisture			
			Diameter in mm.								Total	1/3 atm.	15 atm.	Per inch of soil	Bulk density	Organic matter
			2-1	1-.5	.5-.25	.25-.1	.1-.05	%								
A _p	0- 6	Silt loam	1.4	5.5	4.5	6.3	7.3	25.0	53.0	22.0	27.6	10.1	0.18	1.05	4.0	
A' _{2g}	6-10	Silt loam	2.9	7.7	8.8	9.7	0.0	29.1	51.9	19.0	18.2	7.2	0.21	1.94*	3.8	
B' _{21g}	10-21	Clay loam	5.0	13.0	9.3	9.4	0.0	36.7	32.3	31.0	16.3	9.8	0.13	2.00*	0.4	
B' _{22g}	21-30+	Clay loam	1.0	7.0	6.7	8.5	0.0	23.2	44.3	32.5	17.6	10.2	0.13	1.83*	0.3	

* Clods

Dixmont Silt Loam

M-3-59

Corinna, Penobscot County

A _p	0- 7	Silt loam	0.3	0.7	4.8	7.4	12.0	25.2	57.3	17.5	26.0	9.8	0.20	1.28	3.7
B ₂₁	7-15	Loam	4.0	10.6	7.8	10.2	9.4	42.0	45.0	13.0	18.1	5.6	0.19	1.53	0.8
B _{22gm}	15-23	Silt loam	1.8	6.2	5.5	8.1	10.4	32.0	52.0	16.0	16.1	6.3	0.17	1.71	0.5
B _{31gm}	23-37	Silt loam	2.4	6.2	5.5	8.8	8.6	31.5	50.5	18.0	15.1	9.6	0.09	1.75	0.3
B _{32gu}	37-50	Silt loam	2.3	7.3	5.6	8.7	10.6	34.5	52.5	13.0	17.5	8.1	0.16	1.69	0

Dixmont Silt Loam

M-15-60

Cornville, Somerset County

Horizon	Depth	Texture	Sand					Silt	Clay	Moisture content		Available moisture			
			Diameter in mm.							Total	1/3 atm.	15 atm.	Per inch of soil	Bulk density	Organic matter
			2-1	1-.5	.5-.25	.25-.1	.1-.05								
	Inches				%		%	%	%	% by weight		Inch	Gm/cc	%	
A _p	0-9	Silt loam	2.3	6.6	4.8	8.6	11.7	34.0	63.5	2.5	34.9	15.9	0.22	1.16	6.9
B ₂₁	9-11	Silt loam	1.7	6.8	6.6	8.6	13.3	37.0	58.5	4.5	31.1	6.5	0.31	1.25	3.8
B _{22g}	11-18	Sandy loam	4.0	10.7	8.4	9.3	14.6	47.0	49.0	4.0	26.9	6.4	0.27	1.33	2.0
B ₃₂	18-24	Loam	4.9	11.7	9.6	12.1	12.2	50.5	40.5	9.0	13.2	3.0	0.19	1.86	0.6
C ₁₂	24-36+	Loam	5.4	11.5	9.8	11.5	10.3	48.5	42.5	9.0	12.4	4.6	0.15	1.83	0.2

Easton Silt Loam

M-4-60

Caribou, Aroostook County

A _p	0-12	Silt loam	1.1	3.9	4.5	6.3	5.2	21.0	55.0	24.0	25.3	12.8	0.14	1.15	6.9
A _{2c}	12-17	Silt loam	3.7	11.5	17.5	11.1	9.2	43.0	51.5	5.5	18.5	7.8	0.14	1.37	1.7
B _{21g}	17-25	Silt loam	2.8	12.0	9.8	11.3	8.1	44.0	50.0	6.0	15.0	8.1	0.10	1.38	1.4
B _{22g}	25-42	Loam	0.9	6.1	7.3	11.6	9.1	35.0	48.5	16.5	13.8	8.7	0.11	2.09*	0.3

* Clods

Easton Silt Loam

M-6-60

Caribou, Aroostook County

Horizon	Depth	Texture	Sand					Silt	Clay	Moisture content		Available moisture			
			Diameter in mm.							Total	1/3 atm.	15 atm.	Per inch of soil	Bulk density	Organic matter
			2-1	1-.5	.5-.25	.25-.1	.1-.05								
A _p	0- 6	Silt loam	0.0	1.6	3.4	5.4	4.6	15.0	63.5	21.5	48.5	19.7	0.30	1.06	10.8
A ₂₋₃	6-10	Silt loam	2.4	7.4	7.6	8.7	6.9	33.0	50.5	16.5	21.1	10.3	0.16	1.53	2.0
B _{21g}	10-27	Loam	1.7	7.0	8.2	9.6	7.5	34.0	40.0	26.0	14.4	11.2	0.05	1.85	0.7

Hadley Silt Loam

M-19-60

Norridgewock, Somerset County

A _p	0- 9	Silt loam	0.0	0.4	0.9	14.7	21.0	37.0	56.0	7.0	21.0	7.0	0.18	1.28	3.5
C ₁	9-30+	Silt loam	0.0	0.0	0.1	5.1	17.8	23.0	73.0	4.0	24.8	5.7	0.22	1.12	1.5

Hadley Silt Loam

M-20-60

Norridgewock, Somerset County

Horizon	Depth	Texture	Sand					Total	Silt	Clay	Moisture content		Available moisture		
			Diameter in mm.								1/3 atm.	15 atm.	Per inch of soil	Bulk density	Organic matter
			2-1	1-.5	.5-.25	.25-.1	.1-.05								
A _p	0-10	Silt loam	0.0	0.5	0.9	3.6	14.0	19.0	72.0	9.0	36.1	10.2	0.28	1.09	5.1
C ₁	10-30+	Silt	0.0	0.0	0.2	3.1	10.7	14.0	82.0	4.0	30.4	5.5	0.31	1.25	1.2

Hinckley Sandy Loam

M-7-59

Sanford, York County

A _p	0-8	Loamy sand	27.2	23.2	18.7	8.8	2.7	80.6	16.9	2.5	13.7	8.3	0.06	1.15	3.6
B ₂₁	8-14	Loamy sand	5.5	33.1	19.5	11.3	7.4	76.8	20.7	2.5	16.9	8.7	0.10	1.25	1.9
B ₂₂	14-20	Loamy sand	5.5	32.8	21.1	11.1	8.2	78.7	18.8	2.5	13.2	5.1	0.10	1.23	1.0
C	20-26	Sand	11.1	38.0	22.6	11.4	3.7	86.8	10.7	2.5	7.6	3.0	0.07	1.39	0.6
D	26-32+	Sand	19.3	56.4	15.2	1.9	2.2	95.0	2.5	2.5	6.0	1.4	0.07	1.47	0.3

Mapleton Shaly Silt Loam

M-9-60

Fort Fairfield, Aroostook County

Horizon	Depth Inches	Texture	Sand					Total	Silt %	Clay %	Moisture content		Available moisture		
			Diameter in mm.								1/8 atm.	15 atm.	Per inch of soil	Bulk density Gm/cc	Organic matter %
			2-1	1-.5	.5-.25	.25-.1	.1-.05								
A _p	0- 8	Silt loam	0.6	5.0	4.8	6.5	6.1	23.0	56.0	21.0	25.4	12.9	0.14	1.12	5.0
B ₂₁	8-12	Silt loam	1.4	6.5	6.3	8.5	5.8	28.5	55.5	16.0	23.6	8.2	0.16	1.03	1.5
B ₂₂	12-26	Silt loam	1.4	6.7	5.9	7.7	6.8	28.5	55.5	16.0	22.2	7.6	0.16	1.10	0.9

Monarda Silt Loam

M-5-59

Corinna, Penobscot County

A _p	0- 7	Silt loam	0.5	4.8	4.8	9.1	4.3	23.5	55.5	21.0	48.5	16.0	0.32	0.98	7.2
A _{2c}															
B _{21gm}	7-15	Silt loam	0.9	3.8	4.7	9.9	10.5	29.8	57.2	13.0	20.6	6.2	0.22	1.54	1.2
B _{22gm}															
B _{23gm}	15-38	Silt loam	0.1	0.8	1.9	6.7	21.5	31.0	55.5	13.5	18.6	6.1	0.22	1.71	0.5

Monarda Silt Loam

M-16-60

Cornville, Somerset County

Horizon	Depth	Texture	Sand					Total	Silt	Clay	Moisture content		Available moisture		
			Diameter in mm.								1/3 atm.	15 atm.	Per inch of soil	Bulk density	Organic matter
			2-1	1-.5	.5-.25	.25-.1	.1-.05								
A ₀	0- 9	Silt loam	0.5	2.5	3.0	5.5	5.5	17.0	66.5	16.5	37.5	14.7	0.26	1.12	6.4
B _{21g}	9-22	Silt loam	1.5	5.7	5.4	8.6	8.8	30.0	60.0	10.0	15.9	4.5	0.17	1.53	0.6
B ₂₂	22-28	Silt loam	1.6	5.0	4.4	7.3	6.7	25.0	65.0	10.0	20.3	5.0	0.29	1.85*	0.3

* Clods

Ondawa Fine Sandy Loam

M-32-60

Milo, Piscataquis County

A _p	0-10	Sandy loam	0.0	1.3	14.7	29.8	12.7	58.5	34.5	7.0	22.7	7.8	0.18	1.22	3.4
C ₁	10-21	Sandy loam	0.4	4.3	11.6	24.7	13.5	54.5	39.5	6.0	22.1	4.9	0.19	1.10	1.7
C ₂	21-32	Sandy loam	0.0	1.1	9.5	36.1	21.8	68.5	29.0	2.5	21.7	5.0	0.18	1.04	1.2
D	32-40+	Sand	4.7	18.1	29.9	23.1	13.9	89.7	10.3	0.0	9.6	2.0	0.10	1.38	0.5

Perham Gravelly Silt Loam

M-26-60

Smyrna, Aroostook County

Horizon	Depth Inches	Texture	Sand					Total	Silt %	Clay %	Moisture content		Available moisture		
			Diameter in mm.								1/3 atm.	15 atm.	Per inch of soil Inch	Bulk density Gm/cc	Organic matter %
			2-1	1-.5	.5-.25	.25-.1	.1-.05								
A _p	0- 8	Silt loam	1.3	7.4	5.9	6.8	5.6	27.0	60.0	13.0	35.4	13.9	0.20	0.89	5.2
B ₂	8-16	Silt loam	2.0	10.1	7.8	7.7	7.4	35.0	56.0	9.0	25.4	9.9	0.15	1.00	2.0
A ₂	16-27	Silt loam	3.3	9.9	6.7	7.9	8.2	36.0	52.0	12.0	16.4	4.1	0.25	2.03*	0.3
B ₂₁	27-36+	Silt loam	2.3	7.4	5.7	6.8	7.8	30.0	51.0	19.0	17.9	6.7	0.21	1.90*	0.2

* Clods

Perham Gravelly Silt Loam

M-30-60

Perham, Aroostook County

A _p	0- 7	Silt loam	2.4	7.1	5.8	7.1	5.6	28.0	59.7	12.3	33.4	13.6	0.29	1.48*	7.4
B ₂	7-11	Silt loam	3.0	7.0	6.6	8.9	9.5	35.0	52.2	12.8	22.9	11.2	0.19	1.67*	1.7
A ₂	11-20	Loam	1.7	7.1	6.9	9.1	8.2	33.0	47.0	20.0	20.2	10.7	0.17	1.72*	0.7
B ₂₁	20-30+	Clay loam	1.7	5.7	5.6	7.7	5.8	26.5	45.5	28.0	19.8	11.2	0.16	1.87*	0.3

* Clods

Plaisted Loam

M-2-58

Old Town, Penobscot County

Horizon	Depth Inches	Texture	Sand					Total	Silt %	Clay %	Moisture content		Available moisture		Organic matter %
			Diameter in mm.								1/3 atm.	15 atm.	Per inch of soil Inch	Bulk density Gm/cc	
			2-1	1-5	.5-.25	.25-.1	.1-.05								
A _p	0- 9	Loam	4.6	5.1	12.2	15.1	10.5	47.5	40.8	11.7	29.3	12.3	0.18	1.05	7.4
B ₁	9-14	Sandy loam	4.9	4.8	12.3	20.0	13.0	55.0	40.7	4.3	20.4	7.5	0.16	1.22	4.5
C _{1(m)}	14-36	Sandy loam	6.1	4.6	11.2	17.8	11.7	51.4	43.3	5.3	17.3	4.2	0.17	1.31	1.8
C _{2(m)}	36-44+	Silt loam	4.1	3.4	6.0	11.2	8.3	33.0	59.0	8.0	17.3	2.7	0.17	1.28	1.3

Plaisted Loam

M-2-59

Orono, Penobscot County

A _p	0- 8	Loam	3.6	11.7	11.0	13.8	10.3	50.4	43.4	6.2	27.9	17.7	0.12	1.15	6.7
B ₂₁	8-14	Sandy loam	1.6	8.9	9.3	14.2	26.0	60.0	37.4	2.6	22.0	10.9	0.14	1.21	1.2
B ₂₂	14-20	Sandy loam	3.1	12.7	11.1	12.5	20.1	59.5	37.5	3.0	22.0	8.8	0.16	1.16	0.6
B _{3(m)}	20-26	Sandy loam	2.2	12.4	11.6	14.3	24.3	64.8	29.9	5.3	18.3	4.1	0.18	1.25	0.5
C	26-32+	Sandy loam	2.7	9.0	8.9	13.9	22.0	56.5	38.2	5.3	17.9	3.0	0.23	1.59	0.5

Plaisted Loam

M-24-60

Hartland, Somerset County

Horizon	Depth Inches	Texture	Sand					Total %	Silt %	Clay %	Moisture content		Available moisture		
			Diameter in mm.								15 atm.	Per inch of soil Inch	Bulk density Gm/cc	Organic matter %	
			2-1	1-.5	.5-.25	.25-.1	.1-.05								5 atm.
			%												% by weight
A _p	0- 8	Silt loam	1.0	6.5	7.5	10.8	10.2	36.0	52.2	11.8	31.5	9.3	0.26	1.18	6.9
B ₂₁	8-12	Silt loam	0.7	2.8	3.0	4.3	28.7	39.5	56.2	4.3	37.8	10.2	0.27	0.97	4.0
B ₂₂	12-15	Silt loam	0.7	2.9	3.1	4.1	28.2	39.0	54.5	6.5	31.5	7.7	0.27	1.14	2.5
B ₃	15-18	Silt loam	0.8	3.2	3.2	3.9	25.4	36.5	54.7	8.8	25.4	5.6	0.27	1.36	1.4
C	18-36+	Silt loam	0.8	3.2	3.6	4.5	27.9	40.0	51.0	9.0	17.6	5.2	0.18	1.46	0.8

Salmon Silt Loam

M-21-60

Anson, Somerset County

A _p	0- 7	Silt loam	0.6	2.5	3.8	11.9	15.2	34.0	60.5	5.5	28.3	10.7	0.22	1.25	5.3
B ₂₁	7- 9	Silt loam	0.1	0.9	0.8	4.9	24.3	31.0	65.0	4.0	31.9	12.9	0.16	0.86	4.2
B ₂₂	9-13														
B ₃	13-20	Sandy loam	1.5	5.6	4.1	13.5	25.3	50.0	46.0	4.0	17.9	4.5	0.16	1.15	1.1
D	20-36+	Sand	20.6	55.9	14.7	4.5	3.0	98.7	1.3	0.0	4.4	1.0	0.05	1.62	0.1

Salmon Silt Loam

M-22-60

Madison, Somerset County

Horizon	Depth	Texture	Sand					Total	Silt	Clay	Moisture content		Available moisture		
			Diameter in mm.								13 atm.	15 atm.	Per inch of soil	Bulk density	Organic matter
			2-1	1-5	.5-.25	.25-.1	.1-.05								
A _p	0- 8	Silt loam	0.0	0.3	1.7	16.8	15.2	34.0	58.0	8.0	37.2	9.1	0.32	1.14	4.8
B ₂₁	8-13	Silt loam	0.0	0.0	0.5	10.6	21.4	32.5	63.0	4.5	44.7	11.0	0.32	0.97	3.4
B ₂₂	13-18	Silt loam	0.0	0.0	0.4	13.8	19.8	34.0	62.2	3.8	36.8	7.8	0.28	0.97	3.0
B ₃	18-23	Sandy loam	0.0	0.1	2.5	21.9	23.0	47.5	48.5	4.0	30.1	5.6	0.28	1.14	2.0
D	23-36+	Sandy loam	0.0	0.0	3.6	31.2	30.7	65.5	32.5	2.0	20.5	4.0	0.22	1.33	0.8

Scantig Silt Loam

M-13-60

Skowhegan, Somerset County

A _p	0- 8	Silt loam	0.8	3.8	2.5	4.0	0.9	12.0	57.0	31.0	45.6	15.6	0.31	1.04	7.2
B _{21g}	8-10	Silt loam	1.2	7.0	3.4	2.9	1.0	15.5	63.5	21.0	30.3	13.4	0.22	1.29	3.0
B _{22g}	10-19	Silt loam	0.2	2.6	2.0	1.8	0.4	7.0	73.0	20.0	20.5	8.5	0.19	1.61	0.7
C _{1g}	19-36+	Silty clay	0.0	0.4	0.8	1.4	0.0	2.6	41.6	55.8	24.1	18.2	0.09	1.57	0.6

Stetson Gravelly Loam

M-11-59

Caribou, Aroostook County

Horizon	Depth Inches	Texture	Sand					Total	Silt %	Clay %	Moisture content		Available moisture		
			Diameter in mm.								15 atm.	Per inch of soil	Bulk density	Organic matter	
			2-1	1-.5	.5-.25	.25-.1	.1-.05								15 atm.
A _p	0-10	Sandy loam	14.9	16.3	20.5	10.2	6.3	68.2	25.6	6.2	18.3	10.7	0.09	1.28	3.2
B ₂₁	10-13	Loamy sand	23.7	19.7	23.1	7.7	5.0	79.2	13.3	7.5	25.6	10.9	0.14	0.98	2.2
B ₂₂	13-28	Sand	7.0	19.8	46.1	14.0	8.3	95.2	2.3	2.5	12.1	5.5	0.08	1.18	1.2
B ₃₁	28-38	Sand	19.9	32.6	27.4	7.4	7.8	95.1	4.3	0.6	8.7	4.2	0.09	1.37	0.5
D ₁	38-44+	Sand	52.5	14.9	15.2	7.1	4.6	94.3	4.3	1.4	6.6	2.9	0.06	1.55	0.2

Stetson Gravelly Loam

M-7-60

Fort Fairfield, Aroostook County

A _p	0- 8	Loam	1.7	7.5	17.9	16.9	5.7	49.7	41.3	9.0	23.8	12.1	0.14	1.22	4.8
B ₂₁	8-14	Sandy loam	1.1	10.0	26.1	18.3	12.5	68.0	25.0	7.0	23.7	10.1	0.13	0.98	2.7
B ₂₂	14-23	Loamy sand	2.5	20.6	28.4	17.0	9.7	78.2	19.8	2.0	13.5	5.5	0.10	1.16	1.7
D ₁	23-36	Sand	6.5	31.2	32.0	12.8	10.0	92.5	7.5	0.0	7.2	2.8	0.06	1.41	0.5

Suffield Silt Loam

M-5-58

Old Town, Penobscot County

Horizon	Depth	Texture	Sand					Silt	Clay	Moisture content		Available moisture			
			Diameter in mm.							Total	1 $\frac{1}{2}$ atm.	15 atm.	Per inch of soil	Bulk density	Organic matter
			2-1	1-.5	.5-.25	.25-.1	.1-.05								
A _p	0- 8	Silt loam	1.2	0.9	1.4	2.5	20.0	26.0	68.0	6.0	35.7	14.0	0.23	1.05	5.3
B ₂₁	8-10	Silt loam	0.9	1.1	1.9	3.6	21.0	28.5	66.0	5.5	39.7	10.3	0.34	1.12	3.4
B ₃	10-20	Silt loam	1.3	0.7	1.4	2.6	23.0	29.0	63.0	8.0	26.2	7.2	0.25	1.30	1.3
C	20-26+	Silt loam	2.2	1.5	2.5	5.4	27.9	39.5	54.5	6.0	20.2	5.7	0.23	1.60	0.5

Suffield Silt Loam

M-6-58

Old Town, Penobscot County

A _p	0- 7	Silt loam	0.5	1.6	1.3	2.3	1.3	7.0	73.0	20.0	39.9	13.9	0.30	1.15	6.2
B ₂	7-11	Silt loam	0.4	1.8	1.0	1.3	2.0	6.5	72.5	21.0	30.0	7.5	0.31	1.39	2.2
B ₃	11-16	Silt loam	0.3	1.8	1.1	0.9	2.9	7.0	71.0	22.0	28.6	4.5	0.35	1.44	1.0
C	16-22+	Silt loam	0.2	1.5	1.7	0.9	4.2	8.5	69.5	22.0	20.1	6.7	0.23	1.75	0.6

Suffield Silt Loam

M-10-59

Falmouth, Cumberland County

Horizon	Depth Inches	Texture	Sand						Silt %	Clay %	Moisture content		Available moisture		Organic matter %	
			Diameter in mm.								Total %	by atm.	15 atm.	Per inch of soil Inch		Bulk density Gm/cc
			2-1	1-.5	.5-.25	.25-.1	.1-.05	Total								
A _p	0- 9	Silt loam	4.0	4.3	5.3	4.5	5.9	24.0	52.5	23.5	32.4	16.5	0.16	0.99	3.6	
B ₂₁	9-15	Silt loam	2.2	3.2	3.9	3.7	5.5	18.5	54.5	27.0	29.1	12.9	0.20	1.24	1.4	
B ₂₂	15-24	Silty clay loam	0.2	0.3	0.5	0.7	1.5	4.2	56.3	39.5	24.9	17.9	0.11	1.47	0.2	
C	24-30+	Silty clay loam	0.0	0.1	0.1	0.4	9.4	10.0	54.0	36.0	24.4	15.0	0.15	1.60	0.0	

Suffield Silt Loam

M-12-60

Skowhegan, Somerset County

A _p	0- 6	Silt loam	0.0	0.7	0.9	3.9	12.5	18.0	64.0	18.0	27.2	9.4	0.21	1.19	4.1
B ₂₁	6-10	Silt loam	0.1	0.7	0.8	3.6	14.8	20.0	61.0	19.0	25.4	7.9	0.19	1.11	2.3
B ₂₂	10-14	Silt loam	0.0	0.9	0.9	4.3	11.9	18.0	63.0	19.0	21.5	6.1	0.20	1.29	0.8
B ₂₃	14-36+	Silty clay loam	0.0	0.2	0.4	2.2	4.7	7.5	58.5	34.0	16.5	10.4	0.10	1.63	0.7

Suncook Loamy Sand

M-17-60

Strong, Franklin County

Horizon	Depth Inches	Texture	Sand					Total	Silt %	Clay %	Moisture content		Available moisture		
			Diameter in mm.								13 atm.	15 atm.	Per inch of soil	Bulk density	Organic matter
			2-1	1-.5	.5-.25	.25-.1	.1-.05								
A _p	0-10	Loamy sand	0.6	7.8	26.2	24.1	18.3	77.0	18.0	5.0	10.6	5.2	0.08	1.53	1.9
C ₁	10-15	Sandy loam	0.0	1.6	6.9	35.6	22.4	66.5	31.8	1.7	15.0	4.3	0.13	1.29	1.7
C ₂	15-24	Sand	2.6	59.4	27.6	4.3	3.6	97.5	2.5	0.0	3.2	1.3	0.03	1.47	0.3
C ₃	24-32	Loamy sand	0.1	10.8	29.0	24.8	17.3	82.0	18.0	0.0	11.4	3.8	0.10	1.28	1.1
C ₄	32-42	Sand	0.7	5.1	35.2	8.9	47.6	97.5	2.5	0.0	3.6	1.8	0.03	1.38	0.2

Suncook Loamy Sand

M-18-60

Farmington, Franklin County

A _p	0- 7	Loamy sand	0.4	4.4	27.0	30.5	16.2	78.5	17.7	3.8	11.0	5.0	0.09	1.49	1.7
C ₁	7-24	Loamy sand	0.0	0.1	13.6	39.9	17.4	71.0	27.0	2.0	10.8	4.4	0.09	1.37	1.2
C ₂	24-27	Sand	0.0	1.8	59.8	27.0	6.4	95.0	5.0	0.0	4.7	1.8	0.04	1.30	0.2
C ₃	27-32+	Sandy loam	0.0	0.1	3.6	29.0	21.3	54.0	44.0	2.0	18.6	5.4	0.12	0.92	1.5

Thorndike Silt Loam

M-3-58

Garland, Penobscot County

Horizon	Depth Inches	Texture	Sand					Total	Silt %	Clay %	Moisture content		Available moisture		
			Diameter in mm.								1/3 atm.	15 atm.	Per inch of soil Inch	Bulk density Gm/cc	Organic matter %
			2-1	1-.5	.5-.25	.25-.1	.1-.05								
A _p	0- 8	Silt loam	4.3	3.5	5.1	5.9	7.7	26.5	57.0	16.5	35.3	17.9	0.15	0.89	6.8
B ₁	8-14	Silt loam	6.0	3.8	5.3	7.2	8.2	30.5	55.0	14.5	29.2	12.8	0.17	1.02	5.2
B ₂	14-20	Silt loam	5.4	5.6	6.1	9.4	10.0	36.5	53.0	10.5	24.9	9.6	0.17	1.11	2.8
C	20-24	Silt loam	8.7	5.2	7.4	8.6	11.6	41.5	50.5	8.0	20.3	7.3	0.15	1.11	2.7

Thorndike Shaly Silt Loam

M-25-60

St. Albans, Somerset County

A _p	0- 7	Silt loam	1.0	8.1	6.8	8.0	9.1	33.0	53.5	13.5	33.6	15.5	0.18	1.00	5.5
B ₂₁	7-12	Silt loam	1.9	6.7	5.8	7.7	11.9	34.0	61.5	4.5	32.1	11.5	0.24	1.15	3.4
B ₂₂	12-16	Silt loam	2.2	7.2	6.6	8.0	13.5	34.5	63.0	2.5	29.0	8.5	0.25	1.25	2.9

Thorndike Shaly Loam

M-29-60

Perham, Aroostook County

Horizon	Depth Inches	Texture	Sand					Total	Silt	Clay	Moisture content		Available moisture					
			Diameter in mm.								%	%	%	1/3 atm.	15 atm.	Per inch of soil	Bulk density	Organic matter
			2-1	1-.5	.5-.25	.25-.1	.1-.05											
A _p	0-10	Loam	2.8	9.6	8.2	9.1	8.3	38.0	45.3	16.7	25.7	13.8	0.13	1.06	5.6			
B ₂₁	10-15	Silt loam	2.3	15.5	13.5	13.6	0.0	44.9	53.4	1.7	21.4	14.1	0.07	1.04	5.1			
B ₂₂	15-23	Sandy loam	2.9	15.1	18.9	17.5	0.0	54.4	38.6	7.0	24.5	13.2	0.11	1.03	4.6			