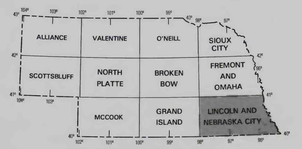

INDEX MAP OF NEBRASKA SHOWING AREA OF PLATE (SHADED)

HYDROLOGIC SOIL GROUPS IN THE LINCOLN AND NEBRASKA CITY QUADRANGLES, NEBRASKA

DESCRIPTIONS OF THE SOIL GROUPS

111 Silty clays to silty clay loams with (a) permeabilities less than 1.0 inch per hour, (b) nearly level to very gentle slopes (maximum slopes 1 to 3 percent), and (c) depths to seasonal high water table less than 6 feet. These soils are predominantly on larger flood plains and are represented by the Albaton-Haynie and Luton-Forney associations.

112 Silty clays to silty clay loams with (a) permeabilities less than 1.0 inch per hour, (b) nearly level to gentle slopes (maximum slopes 2 to 5 percent), and (c) depths to seasonal high water table exceeding 6 feet. These soils are characteristic of the uplands and high terraces of the central and east-central areas of the State and are represented by the Belfore-Moody and Crete-Hastings associations.

122 Clays to silty clays with (a) permeabilities less than 1.0 inch per hour, (b) nearly level to strong slopes (maximum slopes 3 to 10 percent), and (c) depths to seasonal high water table exceeding 6 feet. These soils are principally formed on glacial till in the southeastern areas of the State and are characterized by very slow permeabilities. The Crete-Mayberry and Pawnee-Wymore-Burchard are representative associations.

132 Clays to silty clay loams with (a) permeabilities less than 1.0 inch per hour, (b) nearly level to moderately steep slopes (maximum slopes 10 to 20 percent), and (c) depths to seasonal high water table exceeding 6 feet. These soils are characteristic of uplands in the eastern areas of the State and are represented by the Hastings-Geary and Sharpsburg-Pawnee-Burchard associations.

142 Silty clays to silty clay loams with (a) permeabilities less than 1.0 inch per hour, (b) very gentle to steep slopes (maximum slopes 20 to 30 percent), and (c) depths to seasonal high water table exceeding 6 feet. These soils are most commonly formed in weathered shale and usually exhibit shallow soil development. They occur predominantly in the uplands of extreme northern and southeastern Nebraska and are represented by the Buflon-Orella-Norrest and Kipson-Benfield associations.

211 Silty clay loams to silt loams with (a) permeabilities from 1.0 to 2.0 inches per hour, (b) nearly level to very gentle slopes (maximum slopes 1 to 3 percent), and (c) depths to seasonal high water table less than 6 feet. These soils occur on low terraces and flood plains and are represented by the Zook-Leshara-Wann and Kennebec-Nodaway-Zook associations.

212 Silty clay loams to silt loams with (a) permeabilities from 1.0 to 2.0 inches per hour, (b) nearly level to very gentle slopes (maximum slopes 1 to 3 percent), and (c) depths to seasonal high water table exceeding 6 feet. These soils are present on well-drained terraces and uplands in the central part of the State and are represented by the Hord-Hall and Holdrege-Hall associations.

222 Silty clay loams to silt loams with (a) permeabilities from 1.0 to 2.0 inches per hour, (b) nearly level to strong slopes (maximum slopes 3 to 10 percent), and (c) depths to seasonal high water table exceeding 6 feet. These soils are widely distributed throughout the State and are represented by the Holdrege and Keith-Alliance-Rosebud associations.

232 Silty clay loams to loams with (a) permeabilities from 1.0 to 2.0 inches per hour, (b) very gentle to moderately steep slopes (maximum slopes 10 to 20 percent), and (c) depths to seasonal high water table exceeding 6 feet. These soils are widely distributed and significant within the State and are represented by the Holdrege-Coly-Uly and Ulysses-Keith-Colby associations.

242 Silty clay loams to loams with (a) permeabilities from 1.0 to 2.0 inches per hour, (b) gentle to steep slopes (maximum slopes 20 to 30 percent), and (c) depths to seasonal high water table exceeding 6 feet. These soils are widely distributed within the State and are represented by the Coly-Uly-Holdrege and Monona-Ida associations.

252 Silty clay loams to loams with (a) permeabilities from 1.0 to 2.0 inches per hour, (b) gentle to very steep slopes (maximum slopes that exceed 30 percent), and (c) depths to seasonal high water table exceeding 6 feet. These soils are common in central and southwestern portions of the State and are represented by the Colby-Ulysses and Coly-Uly associations.

312 Silt loams to fine silty loams with (a) permeabilities from 1.5 to 5.0 inches per hour, (b) nearly level to very gentle slopes (maximum slopes 2 to 5 percent), and (c) depths to seasonal high water table exceeding 6 feet. These soils are found in many parts of the State on well-drained bottomlands and terraces and differ from those in group 212 because of slightly higher permeabilities and lower topographic position. The Haverson-Tripp-Glenberg and Hobbs-Hord-Cozad are representative associations.

412 Fine sandy loams to fine sands with (a) permeabilities from 5.0 to 10.0 inches per hour, (b) nearly level to very gentle slopes (maximum slopes 1 to 3 percent), and (c) depths to seasonal high water table exceeding 6 feet. These soils are on flood plains, differing from the 411 soils only in the depths to water table, and are represented by the Casi-Inavale and Glenberg-Bankard-Yockey associations.

432 Fine sandy loams to fine sands with (a) permeabilities from 5.0 to 10.0 inches per hour, (b) nearly level to steep slopes (maximum slopes 10 to 20 percent), and (c) depths to seasonal high water table exceeding 6 feet. These soils occur on uplands and high terraces in transitional areas between sandy and silty soils and are represented by the Nora and Moody-Thurman associations.

532 Loamy fine sands to fine sands with (a) permeabilities exceeding 10.0 inches per hour, (b) nearly level to steep slopes (maximum slopes 10 to 20 percent), and (c) depths to seasonal high water table exceeding 6 feet. These soils are represented by the Jansen-Meadin and Valentine-Hersh associations.

HYDROLOGIC CHARACTERISTICS OF THE SOIL GROUPS

Soil group	Average permeability of 60-inch soil profile (inches per hour)	Average permeability of least permeable horizon (inches per hour)	Average available water capacity (inches per inch)	Average maximum soil slope (percent)	Depth to seasonal high water table (feet)
111	0.80	0.44	.16	2	<6
112	.76	.41	.19	5	>6
122	.31	.17	.14	8	>6
132	.72	.46	.18	14	>6
142	.67	.54	.15	25	>6
211	1.52	.73	.19	2	<6
212	1.23	1.14	.20	3	>6
222	1.23	1.09	.20	5	>6
232	1.28	1.21	.19	15	>6
242	1.37	1.31	.20	23	>6
252	1.31	1.27	.21	48	>6
312	1.73	1.36	.18	3	>6
412	7.52	3.05	.12	2	>6
432	6.56	2.94	.14	13	>6
532	12.46	5.21	.09	14	>6

Map based on "General Soil Map of Lincoln and Nebraska City areas, Nebraska," U.S. Department of Agriculture Soil Conservation Service and Conservation and Survey Division, University of Nebraska-Lincoln, (1976-82). Hydrologic characteristics derived from soil-properties data (U.S. Department of Agriculture Soil Conservation Service, 1978).