

NC STATE UNIVERSITY

Soil Management Groups for North Carolina

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The following groups are being established to provide a basis for common management practices among members of the soils in each group, as well as to assist in grouping soils by yield classes within the bounds of basic soil properties. Soils have been grouped by major physiographic region: Coastal Plain (Groups 1-28), Piedmont (Groups 101-117), and Mountains(Groups 201-217).

Within each physiographic region, groups are arranged in increasing order based first on drainage (PO-VP, SP, MW, WE, SE-EX). Soils with VP, PO, and SP drainage are assumed to have effective artificial drainage to sustain agricultural production.

Within the PO to VP drainage, Histosols are dealt with first, then soils of Flood Plains, Mineral-Organic soils (Histic or Umbric epipedons), and finally, Mineral Soils. Mineral soils are arranged in order by Particle Size Class from silty, fine, fine or coarse loamy, then sands. Where parent materials have a dominating influences on soil property, these have been used as a discriminator in some case. In the mountains, landscape position has been used as well.

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COASTAL PLAINS

NEW SMG	Group Description and Associated Series
1	<p>Very Poorly Drained, Deep (>51 inches) Organic soils of the lower coastal plain.</p> <p>DARE, DOROVAN, PUNGO</p>
2	<p>Very Poorly Drained, Shallow (16 to 51 inches) Organic soils of the lower coastal plains, Colloidal organic materials in Oa2, overlying loamy and sandy materials, lower yield potentials.</p> <p>BELHAVEN, SCUPPERNONG</p>
3	<p>Very Poorly Drained, Shallow (16 to 51 inches) Organic soils of the lower coastal plain. Overlying loamy or silty mineral layers, higher yield potentials .</p> <p>CROATAN, PONZER</p>
4	<p>Poorly to Very Poorly Drained soils of Flood Plains in the Coastal Plain. Frequently flooded, difficult to drain unless protected, most very poorly drained.</p> <p>CHASTAIN, JOHNSTON, MASONTOWN, MUCKALEE, NAWNEY, WEHADKEE, WILBANKS</p>
5	<p>Somewhat Poorly to Poorly Drained soils of Flood Plains in the Coastal Plain. Rare to common flooding, higher positions or nearer to stream channels, hi yields,</p> <p>BIBB, CHEWACLA, KINSTON, UNA</p>
6	<p>MINERAL-ORGANIC SOILS of the Coastal Plains: Histic <16" or Umbric epipedons. Very Poorly Drained. Fine or Silty Particle size classes.</p> <p>BAYBORO, BROOKMAN, BYARS, CAPE FEAR, FORTESCUE, GULLROCK, HYDE, HYDELAND, PETTIGREW, ROPER, WEEKSVILLE</p>
7	<p>MINERAL-ORGANIC SOILS of the Coastal Plains: Histic <16" or Umbric epipedons. Very Poorly Drained. Loamy Particle size classes.</p> <p>ARAPAHOE, BALLAHACK, CONABY, NAKINA, PANTEGO, POCOMOKE, PORTSMOUTH, STOCKADE, TORHUNTA, WASDA</p>
8	<p>MINERAL-ORGANIC SOILS of the Coastal Plains: Histic <16" or Umbric epipedons. Very Poorly Drained. Loamy Particle size classes. Lo yields.</p> <p>BACKBAY, DELOSS, HOBCAW, ICARIA, NEWHOLLAND, PAXVILLE</p>
9	<p>MINERAL-ORGANIC SOILS of the Coastal Plains: Histic <16" or Umbric epipedons. Very Poorly Drained. Sands</p> <p>LYNN HAVEN, MURVILLE, POLAWANA, RUTLEGE</p>

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NEW SMG	Group Description and Associated Series
10	<p>Mineral soils, Poorly drained: Silty Particle Size Class</p> <p>ACREDALE, ELKTON, ENGELHARD, GRANTHAM, LIDDELL, OTHELLO, PASQUOTANK, PERQUIMANS, TREBLOC, WY SOCKING</p>
11	<p>Mineral soils, Poorly drained: Fine Particle Size Class</p> <p>ARGENT, BETHERA, BLADEN, CHICKAHOMINY, COXVILLE, LEAF, McCOLL MEGGETT, ROANOKE</p>
12	<p>Mineral soils, Poorly drained: Fine loamy and Coarse loamy Particle Size Class</p> <p>GRIFTON, LUMBEE, MYATT, NIMMO, RAINS, TOISNOT, TOMOTLEY, TUCKERMAN, WESTON, WOODINGTON, YONGES</p>
13	<p>Mineral Soils , Poorly drained Sands, no Bt within 40"</p> <p>DUCKSTON, LEON, MASCOTTE, OSIER, PLUMMER</p>
14	<p>Mineral soils, Somewhat Poorly drained: Silty Particle Size Class</p> <p>BARCLAY, CHAPANOKE, NAHUNTA</p>
15	<p>Mineral soils, Somewhat Poorly drained: Fine Particle Size Class</p> <p>DUNBAR, LENOIR, NEWFLAT, WAHEE, YAUPON</p>
16	<p>Mineral soils, Somewhat Poorly drained: Fine loamy and Coarse loamy Particle Size Class</p> <p>AUGUSTA, DRAGSTON, FORK, JOHNS, LYNCHBURG, ONSLOW, PENDER, STALLINGS</p>
17	<p>Somewhat Poorly Drained Sandy soils with Bt >20"</p> <p>MANDARIN, OCILLA, SEAGATE, TOMAHAWK</p>
18	<p>Moderately Well Drained Mineral soils: Silty Particle Size Class</p> <p>EXUM, NIXONTON, YEOPIM</p>
19	<p>Moderately Well Drained Mineral soils: Fine Particle Size Class</p> <p>COWARTS, CRAVEN, DOGUE, DUPLIN, GILEAD, GRITNEY, INVERSHIEL, PEAWICK</p>
20	<p>Moderately Well Drained Mineral soils: Fine loamy and Coarse loamy Particle Size Class</p> <p>ALTAVISTA, BERTIE, BOLLING, FORESTON, GOLDSBORO, IZAGORA, MUNDEN, TETOTUM, WOODSTOWN, WRIGHTSBORO</p>

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NEW SMG	Group Description and Associated Series
21	<p>Moderately Well Drained Mineral soils: Fine loamy and Coarse loamy Particle Size Class; Root restricting layers or steeply sloping</p> <p>CHARLESTON, PELION, WINTON</p>
22	<p>Moderately Well Drained Mineral Soils: no Bt within top 40"</p> <p>BLANTON, CHIPLEY, COROLLA, ECHAW, OUSLEY, PACTOLUS, SEABROOK</p>
23	<p>Well Drained Mineral Soils : Silty and Fine Particle Size Class with high Silt</p> <p>AYCOCK, MATAPEAKE, STATE, TURBEVILLE, WICKHAM</p>
24	<p>Well Drained Mineral Soils : Fine Particle Size Class</p> <p>CAROLINE, FACEVILLE, MARLBORO, NANKIN, VARINA</p>
25	<p>Well Drained Mineral Soils : Fine loamy or Coarse loamy Particle Size Class</p> <p>DOTHAN, EMPORIA, KALMIA, KEMPSVILLE, MAXTON, NOBOCO, NORFOLK, ORANGEBURG, RIVERVIEW, RUSTON, SUFFOLK</p>
26	<p>Well Drained Mineral Soils : Fine loamy or Coarse loamy Particle Size Class</p> <p>BOJAC, BRAGG, BUTTERS, MARVYN, RUMFORD, VAUCLUSE</p>
27	<p>Well to Excessively Well Drained Mineral Soils : Loamy Particle Size Class with Bt 20 to 40" (Arenic)</p> <p>AILEY, AUTRYVILLE, BAYMEADE, BLANEY, BONNEAU, CHISOLM, CONETOE, FUQUAY, KENANSVILLE, LILLINGTON, LUCY, POCALLA, UCHEE, VALHALLA, WAGRAM</p>
28	<p>Somewhat Excessively to Excessively Well Drained Mineral Soils : Sand Particle Size Class; >40" to Bt or no Bt (Grossarenic, Psamments)</p> <p>ALAGA, ALPIN, CAINHOY, CANDOR, CENTENARY, EUSTIS, FRIPP, KUREB, LAKELAND, NEWHAN, RIMINI, ST. LUCIE, TARBORO, TROUP, WAKULLA, WANDO</p>

PIEDMONT

NEW SMG	DESCRIPTION AND ASSOCIATED SOILS
101	Poorly drained Mineral Soils; Fine Particle Size Class ARMENIA, LEAKSVILLE, PICTURE, WORSHAM
102	Somewhat Poorly Drained Mineral Soils of Flood Plains AUGUSTA, CARTECAY, CHENNEBY, CHEWACLA, CODORUS, MONACAN, MONCURE, WEHADKEE
103	Moderately Well to Somewhat Poorly Drained: Fine, Fine Loamy and Coarse Loamy Particle Size Class BRICKHAVEN, CARBONTON, CID, COLFAX, DELANCO, HALIFAX, HELENA, HORNSBORO, LIGNUM, PEAWICK, PITTSBORO, SEDGEFIELD, SYLACAUGA
104	Moderately well to Somewhat Poorly; shallow channery MISENHEIMER
105	Moderately Well to Well Drained soils of Flood Plains ALTAVISTA, BUNCOMBE, CONGAREE, DOGUE, OAKBORO, RIVERVIEW, SHELLBLUFF, TOCCOA
106	Moderately Well Drained Mineral Soils: Silty soils of Carolina Slate Belt and Triassic Basin CALLISON, CLAYCREEK, HALLISON, KIRKSEY, MOOSHAUNEE, PAGELAND, SECREST
107	Moderately Well Drained Mineral Soils: Fine Particle Size Class, 2:1 Clays of Triassic Basin, Shrink-Swell CREEDMOOR, IREDELL, LACKSTOWN, ORANGE, POLKTON, WHITE STORE
108	Well Drained Mineral Soils: Silty Particle Size Class ALAMANCE
109	Well Drained Mineral Soils, Rhodic Features, Fine Particle Size Class CORONACA, CULLEN, DAVIDSON, EXWAY, GASTON, GWINNETT, HIWASSEE, LLOYD, STONEVILLE, WADESBORO
110	Well Drained Mineral Soils, Fine, High Base Status (Alfisols) ENON, MECKLENBURG, MOCKSVILLE, POINDEXTER, REDBRUSH, WINNSBORO, WYNOTT, ZION

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111	<p>Well Drained Mineral Soils, Fine, Felsic Parent Materials (Kanhapudults)</p> <p>APPLING, BETHLEHEM, BRADDOCK, CECIL, CLIFFORD, FAIRVIEW, HULETT, MADISON, PACOLET, TOAST, VANCE, WEDOWEE, WESTFIELD, WOOLWINE</p>
112	<p>Well Drained Mineral Soils, Fine, Felsic PM, Root Restrictive Layers</p> <p>ASHLAR, BANNERTOWN, CHESTATEE, DEVOTION, LOUISBURG, SAW, WAKE, WATEREE</p>
113	<p>Well Drained Mineral Soils, Fine, Carolina Slate Belt</p> <p>BADIN, GEORGEVILLE, HERNDON, MONTONIA, NANFORD, NASON, TARRUS, TATUM, UWHARRIE</p>
114	<p>Well Drained Mineral Soils, Fine, Triassic Basin</p> <p>CLOVER, MAYODAN, SPRAY, SURRY</p>
115	<p>Well Drained Mineral Soils, Fine and Loamy Particle Size Class, Stream Terraces</p> <p>MASADA, McQUEEN, SKYUKA, STARR, STATE, WICKHAM</p>
116	<p>Well Drained Mineral Soils, Fine Loamy Upland Soils</p> <p>AYERSVILLE, DURHAM, GLENELG, GRANVILLE, GROVER, PINKSTON, PINOKA, RHODHISS, RION, STOTT KNOB</p>
117	<p>Somewhat Excessively to Excessively Well Drained Mineral Soils, Loamy</p> <p>CLIFFSIDE, GOLDSTON, HIBRITEN, LOCKHART, LOUISA, MEADOWFIELD, SILOAM, TALLAPOOSA, WILKES</p>

Mountains

NEW SMG	DESCRIPTION AND ASSOCIATED SOILS
201	<p>Poorly Very Poorly Drained Soils of Low Stream Terraces and Large Flood Plains, Difficult to Drain.</p> <p>CHATUGE, HEMPHILL, KINKORA</p>
202	<p>Poorly to Very Poorly Drained Soils of Small Flood Plains and Coves, Small Backwaters. Difficult to Drain, Little elevation change from Field to Stream. Fine loamy and Coarse loamy Particle Size Class.</p> <p>HATBORO, NIKWASI, SYLVA</p>
203	<p>Poorly to Very Poorly Drained Soils of Flood Plains and Backwaters of Larger Rivers. Sufficient elevation for drainage. Typically having Umbric epipedons.</p> <p>TOXAWAY</p>
204	<p>Somewhat Poorly Drained Soils of Small Stream Flood Plains with contrasting texture (Sand and gravel within 20 to 40 inches of the surface. Easily drained in larger areas. Fine Loamy and Coarse Loamy Particle Size Class.</p> <p>ARKAQUA, BANDANA, CULLOWHEE, FRENCH</p>
205	<p>Somewhat Poorly to Well Drained Soils of Flood Plains on Larger Creeks and Small Rivers. Fine loamy and Coarse Loamy Particle Size Class. No Umbric Epipedons. Easily drained in larger areas.</p> <p>COLVARD, IOTLA, SUCHES</p>
206	<p>Moderately Well Drained Soils of Low Stream Terraces, Fans, Benches and Toe Slopes without Dark Surface Horizons. Fine Loamy Particle Size Class.</p> <p>DILLARD, WHITESIDE</p>
207	<p>Moderately Well to Well Drained Mineral Soils of Flood Plains with Umbric Epipedons. Coarse Loamy Particle Size Class.</p> <p>REDDIES, ROSMAN, TRANSYLVANIA</p>
208	<p>Well to Excessively Well Drained Sands of Flood Plains: Stream Levees and Inner River Bends</p> <p>BILTMORE, SUNCOOK</p>

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209	<p>Moderately Well to Well Drained Soils of the Initial Flood Plains from Mountain Streams. Rough, scoured surfaces with dips and swales. Loamy skeletal or sandy skeletal Particle Size Class.</p> <p>CRAIGSVILLE, DELLWOOD, OSTIN</p>
210	<p>Well Drained, Red, Fine Particle Size Class, Soils of High Stream Terraces, Foothills, and Fans</p> <p>BRADDOCK, BRADSON, CLIFTON, DYKE, HAYESVILLE, NANTAHALA, RABUN</p>
211	<p>Well Drained Soils in Concave Positions of High Stream Terraces and Foothills, Fine Particle Size Class,</p> <p>BREVARD, DILLSBORO, LODI, UNISON</p>
212	<p>Well Drained, Residual Upland Soils in Convex Positions and Irregular Slopes. Fine Loamy Particle Size Class.</p> <p>BRASSTOWN, WATAUGA</p>
213	<p>Well Drained Colluvial Soils of Coves, Fans, Toe Slopes and Benches. Fine Loamy and Coarse Loamy Particle Size Class.</p> <p>BROOKSHIRE, KEENER, LONON, SANTEETLAH, SAUNOOK, SHELOCTA, SHOUNS, TATE, THURMONT, TUCKASEGEE, TUSQUITEE, WHITEOAK</p>
214	<p>Soils of Ridges and Side slopes formed in place from high mica parent materials. Red, Erosive.</p> <p>FANNIN</p>
215	<p>Well Drained Soils of Stream Terraces (Second Bottoms). Rarely flooded, Fine Loamy Particle Size Class and well developed argillic horizons.</p> <p>ELSINBORO, STATLER</p>
216	<p>Well Drained Residual Soils of Ridgetops and Sideslopes, Irregular or Convex Positions, Erosive.</p> <p>EDNEYTOWN, EDNEYVILLE, EVARD, FLETCHER</p>
217	<p>Soils of North and East Facing Aspects on Slopes at Elevations of 3500 to 5000 feet. Coarse loamy Particle Size Class.</p> <p>CASHIERS, PORTERS</p>

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