

United States Department of Agriculture

Resources Conservation Service A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

## Custom Soil Resource Report for **Robeson County, North Carolina**

**Casey Farm** 



### Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/? cid=nrcs142p2\_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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## **How Soil Surveys Are Made**

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

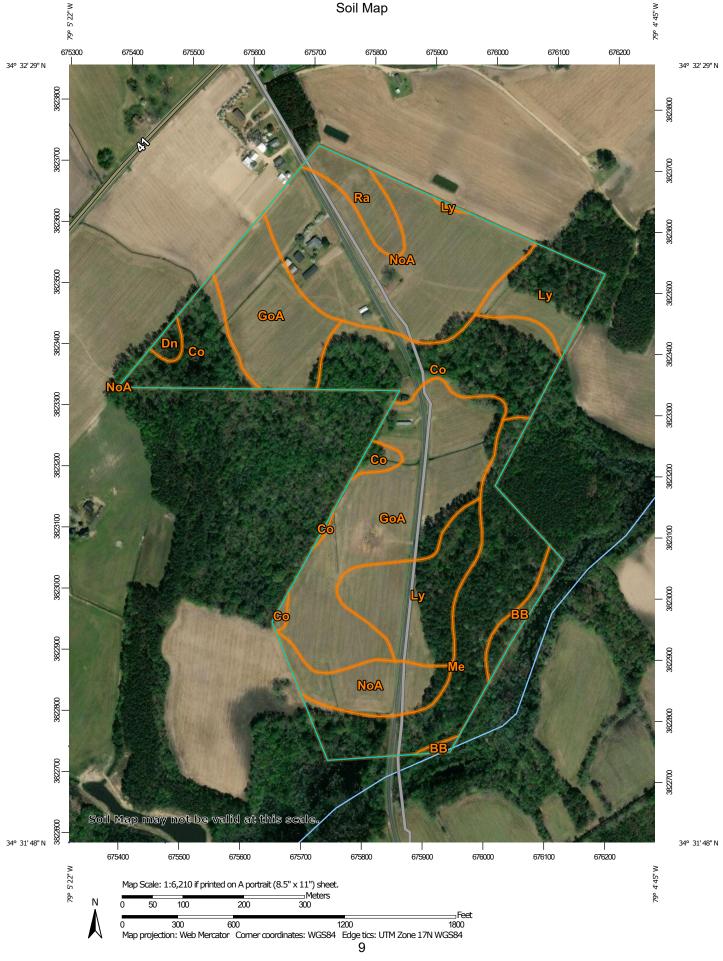
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

# Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

#### Custom Soil Resource Report Soil Map



	MAP L	EGEND	)	MAP INFORMATION
Area of In	terest (AOI) Area of Interest (AOI)	8	Spoil Area Stony Spot	The soil surveys that comprise your AOI were mapped at 1:20,000.
Soils	Soil Map Unit Polygons	00 V	Very Stony Spot Wet Spot	Warning: Soil Map may not be valid at this scale.
~	Soil Map Unit Lines Soil Map Unit Points	v ∆	Other	Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil
Special	Point Features Blowout	Water Fea		line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.
	Borrow Pit Clay Spot	Transport		Please rely on the bar scale on each map sheet for map
\$	Closed Depression	~	Rails Interstate Highways	measurements. Source of Map: Natural Resources Conservation Service
	Gravel Pit Gravelly Spot	~	US Routes Major Roads	Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857)
0 1	Landfill Lava Flow	Backgrou	Local Roads	Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts
<u>لي</u> ج	Marsh or swamp Mine or Quarry	Backgroun	Aerial Photography	distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.
0	Miscellaneous Water			This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.
0 ~	Perennial Water Rock Outcrop			Soil Survey Area: Robeson County, North Carolina
+	Saline Spot Sandy Spot			Survey Area Data: Version 16, Sep 10, 2018 Soil map units are labeled (as space allows) for map scales
=	Severely Eroded Spot Sinkhole			1:50,000 or larger.
\$ ≥	Slide or Slip			Date(s) aerial images were photographed: Apr 22, 2015—Nov 28, 2017
Ø	Sodic Spot			The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI				
BB	Bibb soils	1.6	1.6%				
Со	Coxville loam	15.8	16.7%				
Dn	Dunbar sandy loam	0.5	0.6%				
GoA	Goldsboro loamy sand, 0 to 2 percent slopes, Southern Coastal Plain	26.6	28.0%				
Ly	Lynchburg sandy loam, 0 to 2 percent slopes	12.5	13.2%				
Ме	Meggett fine sandy loam	12.5	13.1%				
NoA Norfolk loamy sand, 0 to 2 percent slopes		22.8	23.9%				
Ra	Rains sandy loam, 0 to 2 percent slopes	2.7	2.9%				
Totals for Area of Interest		95.0	100.0%				

### **Map Unit Legend**

### **Map Unit Descriptions**

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor

components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

#### **Robeson County, North Carolina**

#### **BB**—Bibb soils

#### **Map Unit Setting**

National map unit symbol: 3vdw Elevation: 80 to 330 feet Mean annual precipitation: 38 to 55 inches Mean annual air temperature: 59 to 70 degrees F Frost-free period: 210 to 265 days Farmland classification: Not prime farmland

#### **Map Unit Composition**

*Bibb, undrained, and similar soils:* 80 percent *Johnston, undrained, and similar soils:* 10 percent *Estimates are based on observations, descriptions, and transects of the mapunit.* 

#### **Description of Bibb, Undrained**

#### Setting

Landform: Flood plains Landform position (two-dimensional): Toeslope Down-slope shape: Concave Across-slope shape: Linear Parent material: Sandy and loamy alluvium

#### **Typical profile**

A - 0 to 6 inches: sandy loam Cg1 - 6 to 60 inches: sandy loam Cg2 - 60 to 80 inches: loamy sand

#### **Properties and qualities**

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.2 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 5w Hydrologic Soil Group: A/D Hydric soil rating: Yes

#### Description of Johnston, Undrained

#### Setting

Landform: Flood plains Down-slope shape: Concave Across-slope shape: Linear Parent material: Sandy and loamy alluvium

#### **Typical profile**

A - 0 to 30 inches: mucky loam Cg1 - 30 to 34 inches: loamy fine sand Cg2 - 34 to 80 inches: fine sandy loam

#### **Properties and qualities**

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Very poorly drained
Runoff class: Ponded
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: Frequent
Frequency of ponding: Frequent
Available water storage in profile: High (about 9.4 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 7w Hydrologic Soil Group: A/D Hydric soil rating: Yes

#### Co—Coxville loam

#### Map Unit Setting

National map unit symbol: 3vdy Elevation: 80 to 330 feet Mean annual precipitation: 38 to 55 inches Mean annual air temperature: 59 to 70 degrees F Frost-free period: 210 to 265 days Farmland classification: Farmland of statewide importance

#### Map Unit Composition

*Coxville, drained, and similar soils:* 85 percent *Coxville, undrained, and similar soils:* 10 percent *Estimates are based on observations, descriptions, and transects of the mapunit.* 

#### **Description of Coxville, Drained**

#### Setting

Landform: Carolina bays, depressions Landform position (two-dimensional): Summit Down-slope shape: Concave Across-slope shape: Concave Parent material: Clayey marine deposits

#### **Typical profile**

*Ap - 0 to 9 inches:* loam *Eg - 9 to 11 inches:* loam

*Btg - 11 to 72 inches:* sandy clay *Cg - 72 to 80 inches:* sandy clay loam

#### **Properties and qualities**

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.6 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 3w Hydrologic Soil Group: C/D Hydric soil rating: Yes

#### **Description of Coxville, Undrained**

#### Setting

Landform: Depressions, carolina bays Landform position (two-dimensional): Summit Down-slope shape: Concave Across-slope shape: Concave Parent material: Clayey marine deposits

#### **Typical profile**

A - 0 to 9 inches: loam Eg - 9 to 11 inches: loam Btg - 11 to 72 inches: sandy clay Cg - 72 to 80 inches: sandy clay loam

#### Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.6 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 4w Hydrologic Soil Group: C/D Hydric soil rating: Yes

#### Dn—Dunbar sandy loam

#### Map Unit Setting

National map unit symbol: 3vdz Elevation: 80 to 330 feet Mean annual precipitation: 38 to 55 inches Mean annual air temperature: 59 to 70 degrees F Frost-free period: 210 to 265 days Farmland classification: Farmland of statewide importance

#### Map Unit Composition

Dunbar, drained, and similar soils: 80 percent Dunbar, undrained, and similar soils: 10 percent Minor components: 4 percent Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Dunbar, Drained**

#### Setting

Landform: Flats on broad interstream divides Landform position (two-dimensional): Summit Down-slope shape: Linear Across-slope shape: Linear Parent material: Clayey marine deposits

#### **Typical profile**

Ap - 0 to 8 inches: fine sandy loam Bt - 8 to 14 inches: clay loam Btg - 14 to 62 inches: sandy clay Cg - 62 to 92 inches: sandy clay

#### **Properties and qualities**

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 9.4 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 2w Hydrologic Soil Group: C/D Hydric soil rating: No

#### **Description of Dunbar, Undrained**

#### Setting

Landform: Flats on broad interstream divides Landform position (two-dimensional): Summit Down-slope shape: Linear Across-slope shape: Linear Parent material: Clayey marine deposits

#### **Typical profile**

A - 0 to 8 inches: fine sandy loam Bt - 8 to 14 inches: clay loam Btg - 14 to 62 inches: sandy clay Cg - 62 to 92 inches: sandy clay

#### **Properties and qualities**

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 9.4 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 3w Hydrologic Soil Group: C/D Hydric soil rating: No

#### **Minor Components**

#### Coxville, undrained

Percent of map unit: 2 percent Landform: Depressions, carolina bays Landform position (two-dimensional): Summit Down-slope shape: Concave Across-slope shape: Concave Hydric soil rating: Yes

#### Rains, undrained

Percent of map unit: 2 percent
Landform: Flats on marine terraces, carolina bays on marine terraces, broad interstream divides on marine terraces
Landform position (two-dimensional): Summit
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

# GoA—Goldsboro loamy sand, 0 to 2 percent slopes, Southern Coastal Plain

#### **Map Unit Setting**

National map unit symbol: 2v750 Elevation: 110 to 300 feet Mean annual precipitation: 40 to 55 inches Mean annual air temperature: 59 to 70 degrees F Frost-free period: 200 to 280 days Farmland classification: All areas are prime farmland

#### **Map Unit Composition**

Goldsboro and similar soils: 85 percent Minor components: 15 percent Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Goldsboro**

#### Setting

Landform: Flats on marine terraces, broad interstream divides on marine terraces Landform position (three-dimensional): Talf Down-slope shape: Linear Across-slope shape: Linear Parent material: Loamy marine deposits

#### **Typical profile**

Ap - 0 to 9 inches: loamy sand E - 9 to 12 inches: loamy sand Bt - 12 to 62 inches: sandy clay loam Btg - 62 to 80 inches: sandy clay loam

#### **Properties and qualities**

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 24 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 8.1 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 2w Hydrologic Soil Group: B Hydric soil rating: No

#### **Minor Components**

#### Norfolk

Percent of map unit: 8 percent Landform: Broad interstream divides on marine terraces, flats on marine terraces Landform position (three-dimensional): Talf Down-slope shape: Convex, linear Across-slope shape: Convex, linear Hydric soil rating: No

#### Lynchburg

Percent of map unit: 7 percent Landform: Flats on marine terraces, broad interstream divides on marine terraces Landform position (three-dimensional): Talf Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: No

#### Ly—Lynchburg sandy loam, 0 to 2 percent slopes

#### **Map Unit Setting**

National map unit symbol: 2vx8p Elevation: 10 to 330 feet Mean annual precipitation: 40 to 55 inches Mean annual air temperature: 59 to 70 degrees F Frost-free period: 200 to 280 days Farmland classification: Prime farmland if drained

#### Map Unit Composition

*Lynchburg and similar soils:* 84 percent *Minor components:* 16 percent *Estimates are based on observations, descriptions, and transects of the mapunit.* 

#### **Description of Lynchburg**

#### Setting

Landform: Flats on marine terraces, broad interstream divides on marine terraces Landform position (three-dimensional): Talf Down-slope shape: Linear Across-slope shape: Linear Parent material: Loamy marine deposits

#### **Typical profile**

Ap - 0 to 8 inches: sandy loam E - 8 to 11 inches: sandy loam Bt - 11 to 21 inches: sandy clay loam Btg - 21 to 65 inches: sandy clay loam BCg - 65 to 85 inches: sandy clay loam

#### **Properties and qualities**

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 6.6 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 2w Hydrologic Soil Group: B/D Hydric soil rating: No

#### **Minor Components**

#### Goldsboro

Percent of map unit: 8 percent Landform: Flats on marine terraces, broad interstream divides on marine terraces Landform position (three-dimensional): Talf Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: No

#### Rains

Percent of map unit: 8 percent Landform: Flats on marine terraces, broad interstream divides on marine terraces Landform position (three-dimensional): Dip, talf Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: Yes

#### Me—Meggett fine sandy loam

#### Map Unit Setting

National map unit symbol: 3vfj Elevation: 80 to 330 feet Mean annual precipitation: 38 to 55 inches Mean annual air temperature: 59 to 70 degrees F Frost-free period: 210 to 265 days Farmland classification: Farmland of statewide importance

#### Map Unit Composition

Meggett, undrained, and similar soils: 80 percent Meggett, drained, and similar soils: 10 percent Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Meggett, Undrained**

#### Setting

Landform: Stream terraces Landform position (three-dimensional): Tread Down-slope shape: Concave Across-slope shape: Linear Parent material: Loamy fluviomarine deposits over marly sandy and clayey alluvium

#### **Typical profile**

A - 0 to 8 inches: loam E - 8 to 14 inches: fine sandy loam Btg - 14 to 48 inches: clay Cg - 48 to 80 inches: clay

#### **Properties and qualities**

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: Frequent
Frequency of ponding: Rare
Calcium carbonate, maximum in profile: 10 percent
Available water storage in profile: High (about 9.0 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 6w Hydrologic Soil Group: C/D Hydric soil rating: Yes

#### **Description of Meggett, Drained**

#### Setting

Landform: Stream terraces Landform position (three-dimensional): Tread Down-slope shape: Concave Across-slope shape: Linear Parent material: Loamy fluviomarine deposits over marly sandy and clayey alluvium

#### **Typical profile**

Ap - 0 to 8 inches: loam E - 8 to 14 inches: fine sandy loam Btg - 14 to 48 inches: clay Cg - 48 to 80 inches: clay

#### **Properties and qualities**

Slope: 0 to 2 percent Depth to restrictive feature: More than 80 inches Natural drainage class: Poorly drained Runoff class: Negligible

#### **Custom Soil Resource Report**

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr) Depth to water table: About 0 to 12 inches Frequency of flooding: Frequent Frequency of ponding: None Calcium carbonate, maximum in profile: 10 percent Available water storage in profile: High (about 9.0 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 3w Hydrologic Soil Group: C/D Hydric soil rating: Yes

#### NoA—Norfolk loamy sand, 0 to 2 percent slopes

#### Map Unit Setting

National map unit symbol: 2v75w Elevation: 10 to 330 feet Mean annual precipitation: 40 to 55 inches Mean annual air temperature: 59 to 70 degrees F Frost-free period: 200 to 280 days Farmland classification: All areas are prime farmland

#### Map Unit Composition

Norfolk and similar soils: 83 percent Minor components: 17 percent Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Norfolk**

#### Setting

Landform: Broad interstream divides on marine terraces, flats on marine terraces Landform position (three-dimensional): Talf Down-slope shape: Convex, linear Across-slope shape: Convex, linear Parent material: Loamy marine deposits

#### **Typical profile**

Ap - 0 to 8 inches: loamy sand E - 8 to 14 inches: loamy sand Bt - 14 to 65 inches: sandy clay loam BC - 65 to 80 inches: sandy clay loam

#### **Properties and qualities**

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 40 to 72 inches

*Frequency of flooding:* None *Frequency of ponding:* None *Available water storage in profile:* Moderate (about 6.9 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 1 Hydrologic Soil Group: A Hydric soil rating: No

#### **Minor Components**

#### Goldsboro

Percent of map unit: 9 percent Landform: Flats on marine terraces, broad interstream divides on marine terraces Landform position (three-dimensional): Talf Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: No

#### Wagram

Percent of map unit: 8 percent
Landform: Broad interstream divides on marine terraces, ridges on marine terraces
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Crest, talf
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

#### Ra-Rains sandy loam, 0 to 2 percent slopes

#### Map Unit Setting

National map unit symbol: 2v760 Elevation: 30 to 330 feet Mean annual precipitation: 40 to 55 inches Mean annual air temperature: 59 to 70 degrees F Frost-free period: 200 to 280 days Farmland classification: Prime farmland if drained

#### Map Unit Composition

Rains, undrained, and similar soils: 58 percent Rains, drained, and similar soils: 24 percent Minor components: 18 percent Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Rains, Undrained**

#### Setting

*Landform:* Carolina bays on marine terraces, broad interstream divides on marine terraces, flats on marine terraces

Landform position (three-dimensional): Dip, talf Down-slope shape: Linear Across-slope shape: Linear Parent material: Loamy marine deposits

#### **Typical profile**

A - 0 to 6 inches: sandy loam Eg - 6 to 12 inches: sandy loam Btg - 12 to 65 inches: sandy clay loam BCg - 65 to 80 inches: sandy clay loam

#### **Properties and qualities**

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 1.98 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.9 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 4w Hydrologic Soil Group: A/D Hydric soil rating: Yes

#### Description of Rains, Drained

#### Setting

Landform: Broad interstream divides on marine terraces, flats on marine terraces, carolina bays on marine terraces
 Landform position (three-dimensional): Dip, talf
 Down-slope shape: Linear
 Across-slope shape: Linear
 Parent material: Loamy marine deposits

#### **Typical profile**

Ap - 0 to 6 inches: sandy loam Eg - 6 to 12 inches: sandy loam Btg - 12 to 65 inches: sandy clay loam BCg - 65 to 80 inches: sandy clay loam

#### **Properties and qualities**

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 1.98 in/hr)
Depth to water table: About 12 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.9 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: B Hydric soil rating: Yes

#### **Minor Components**

#### Lynchburg

Percent of map unit: 10 percent Landform: Broad interstream divides on marine terraces, flats on marine terraces Landform position (three-dimensional): Talf Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: No

#### Pantego, undrained

Percent of map unit: 8 percent Landform: Stream terraces, flats, broad interstream divides Landform position (three-dimensional): Tread, talf Down-slope shape: Linear Across-slope shape: Concave Hydric soil rating: Yes

# Soil Information for All Uses

### Suitabilities and Limitations for Use

The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

### **Vegetative Productivity**

Vegetative productivity includes estimates of potential vegetative production for a variety of land uses, including cropland, forestland, hayland, pastureland, horticulture and rangeland. In the underlying database, some states maintain crop yield data by individual map unit component. Other states maintain the data at the map unit level. Attributes are included for both, although only one or the other is likely to contain data for any given geographic area. For other land uses, productivity data is shown only at the map unit component level. Examples include potential crop yields under irrigated and nonirrigated conditions, forest productivity, forest site index, and total rangeland production under of normal, favorable and unfavorable conditions.

### Yields of Non-Irrigated Crops (Component): Corn (Bu)

These are the estimated average yields per acre that can be expected of selected nonirrigated crops under a high level of management. In any given year, yields may be higher or lower than those indicated because of variations in rainfall and other climatic factors.

In the database, some states maintain crop yield data by individual map unit component and others maintain the data at the map unit level. Attributes are included in this application for both, although only one or the other is likely to contain data for any given geographic area. This attribute uses data maintained at the map unit component level.

The yields are actually recorded as three separate values in the database. A low value and a high value indicate the range for the soil component. A "representative"

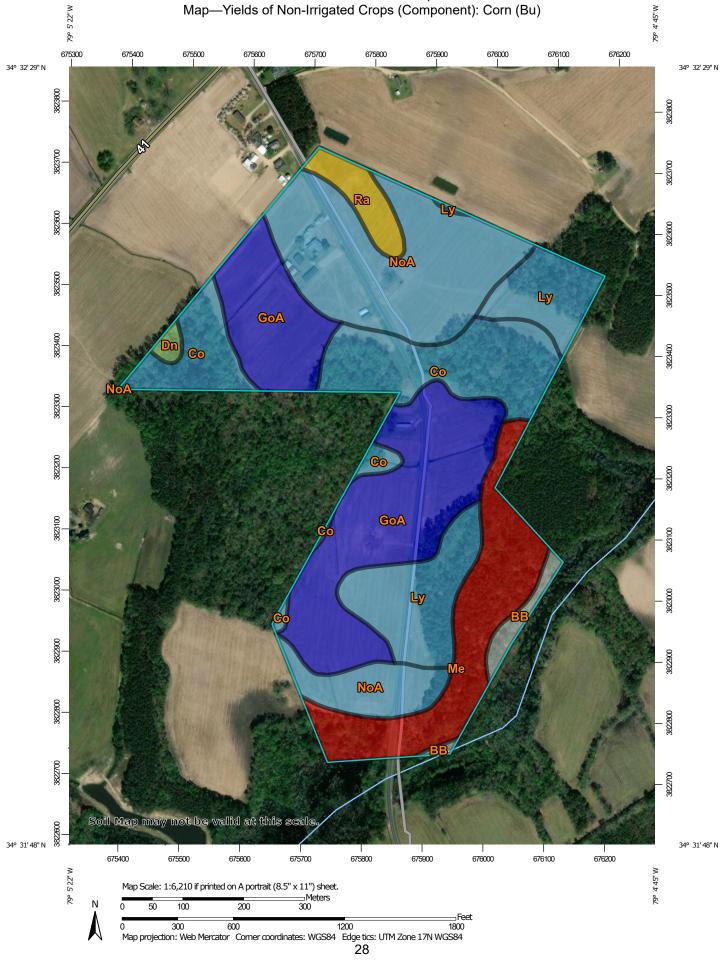
value indicates the expected value for the component. For these yields, only the representative value is used.

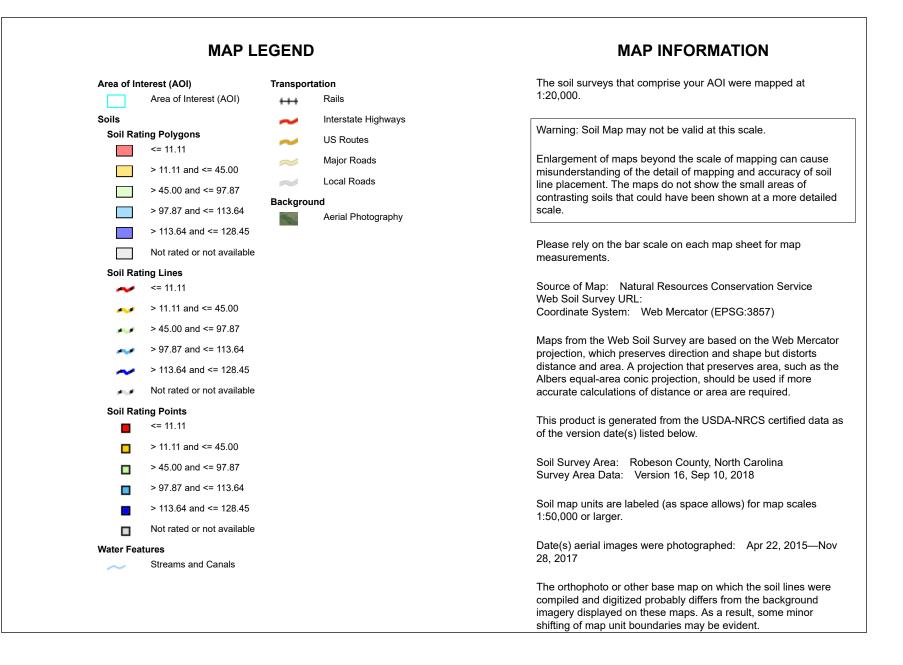
The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby areas and results of field trials and demonstrations also are considered.

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, and green manure crops; and harvesting that ensures the smallest possible loss.

The estimated yields reflect the productive capacity of each soil for the selected crop. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change.

Custom Soil Resource Report





Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI		
ВВ	Bibb soils		1.6	1.6%		
Со	Coxville loam	106.47	15.8	16.7%		
Dn	Dunbar sandy loam	97.87	0.5	0.6%		
GoA	Goldsboro loamy sand, 0 to 2 percent slopes, Southern Coastal Plain	128.45	26.6	28.0%		
Ly	Lynchburg sandy loam, 0 to 2 percent slopes	113.64	12.5	13.2%		
Ме	Meggett fine sandy loam	11.11	12.5	13.1%		
NoA	Norfolk loamy sand, 0 to 2 percent slopes	113.07	22.8	23.9%		
Ra	Rains sandy loam, 0 to 2 percent slopes	45.00	2.7	2.9%		
Totals for Area of Intere	Totals for Area of Interest			100.0%		

#### Table—Yields of Non-Irrigated Crops (Component): Corn (Bu)

#### Rating Options—Yields of Non-Irrigated Crops (Component): Corn (Bu)

Crop: Corn

Yield Units: Bu

Aggregation Method: Weighted Average

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Interpret Nulls as Zero: Yes

# Yields of Non-Irrigated Crops (Component): Soybeans (Bu)

These are the estimated average yields per acre that can be expected of selected nonirrigated crops under a high level of management. In any given year, yields may be higher or lower than those indicated because of variations in rainfall and other climatic factors.

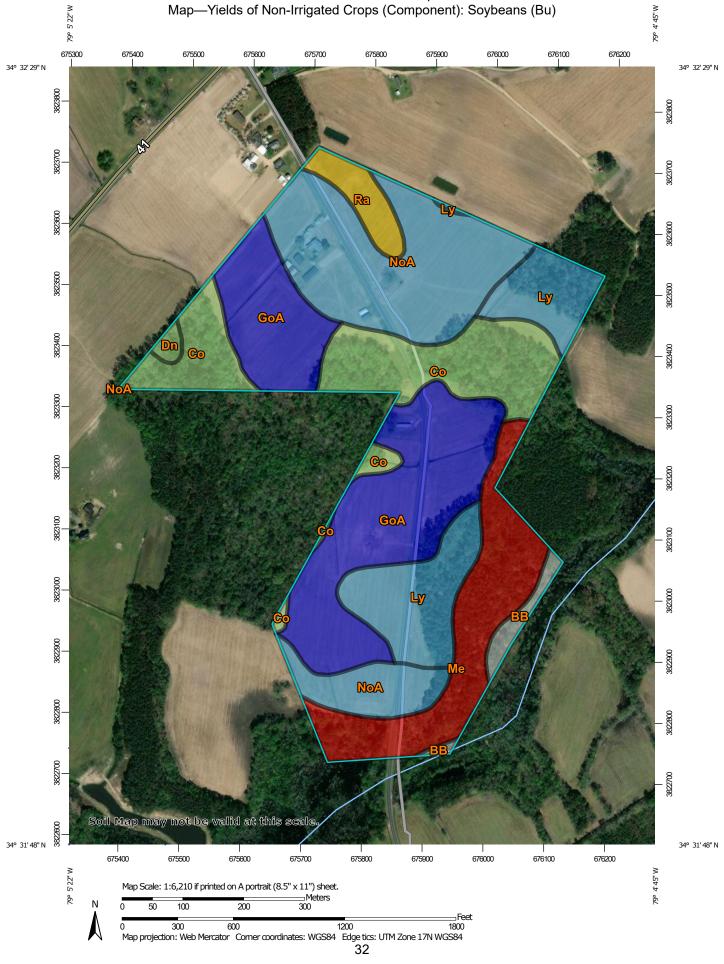
In the database, some states maintain crop yield data by individual map unit component and others maintain the data at the map unit level. Attributes are included in this application for both, although only one or the other is likely to contain data for any given geographic area. This attribute uses data maintained at the map unit component level. The yields are actually recorded as three separate values in the database. A low value and a high value indicate the range for the soil component. A "representative" value indicates the expected value for the component. For these yields, only the representative value is used.

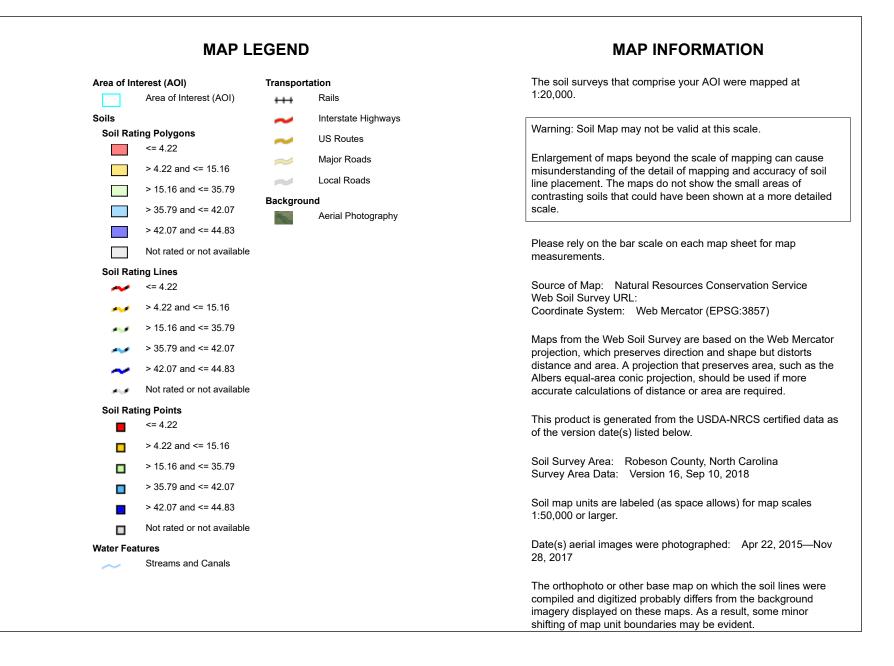
The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby areas and results of field trials and demonstrations also are considered.

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, and green manure crops; and harvesting that ensures the smallest possible loss.

The estimated yields reflect the productive capacity of each soil for the selected crop. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change.

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Table—Yields of Non-Irrigated Crops (Component): Soybeans
(Bu)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BB	Bibb soils		1.6	1.6%
Со	Coxville loam	35.79	15.8	16.7%
Dn	Dunbar sandy loam	35.74	0.5	0.6%
GoA	Goldsboro loamy sand, 0 to 2 percent slopes, Southern Coastal Plain	44.83	26.6	28.0%
Ly	Lynchburg sandy loam, 0 to 2 percent slopes	42.07	12.5	13.2%
Ме	Meggett fine sandy loam	4.22	12.5	13.1%
NoA	Norfolk loamy sand, 0 to 2 percent slopes	41.07	22.8	23.9%
Ra	Rains sandy loam, 0 to 2 percent slopes	15.16	2.7	2.9%
Totals for Area of Inter	Totals for Area of Interest			100.0%

# Rating Options—Yields of Non-Irrigated Crops (Component): Soybeans (Bu)

Crop: Soybeans Yield Units: Bu Aggregation Method: Weighted Average Component Percent Cutoff: None Specified Tie-break Rule: Higher Interpret Nulls as Zero: Yes

# Yields of Non-Irrigated Crops (Component): Cotton lint (Lbs)

These are the estimated average yields per acre that can be expected of selected nonirrigated crops under a high level of management. In any given year, yields may be higher or lower than those indicated because of variations in rainfall and other climatic factors.

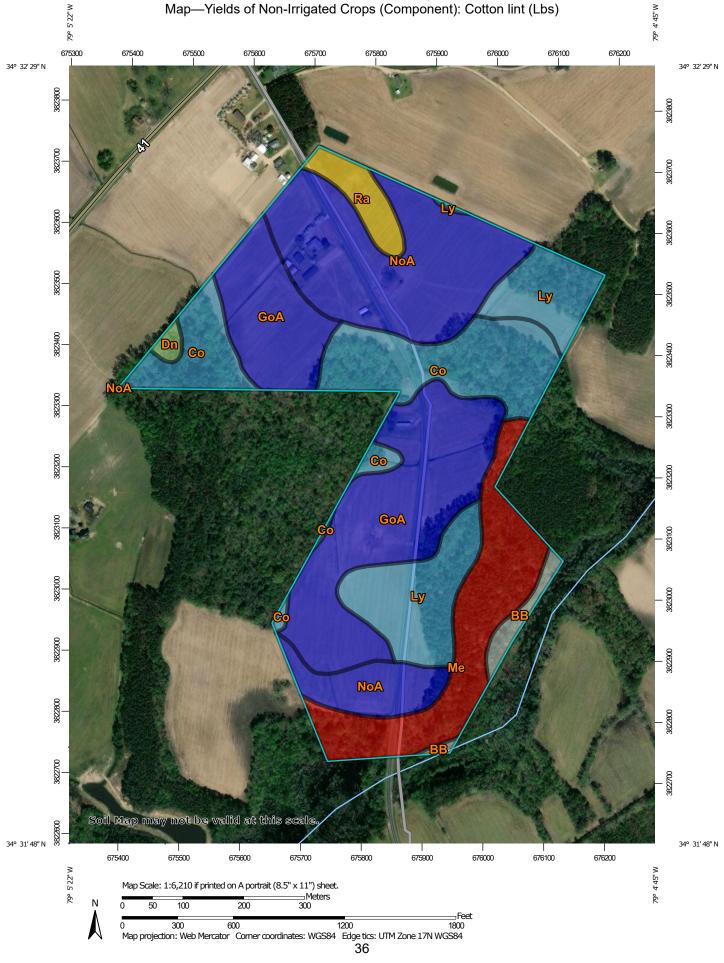
In the database, some states maintain crop yield data by individual map unit component and others maintain the data at the map unit level. Attributes are included in this application for both, although only one or the other is likely to contain data for any given geographic area. This attribute uses data maintained at the map unit component level. The yields are actually recorded as three separate values in the database. A low value and a high value indicate the range for the soil component. A "representative" value indicates the expected value for the component. For these yields, only the representative value is used.

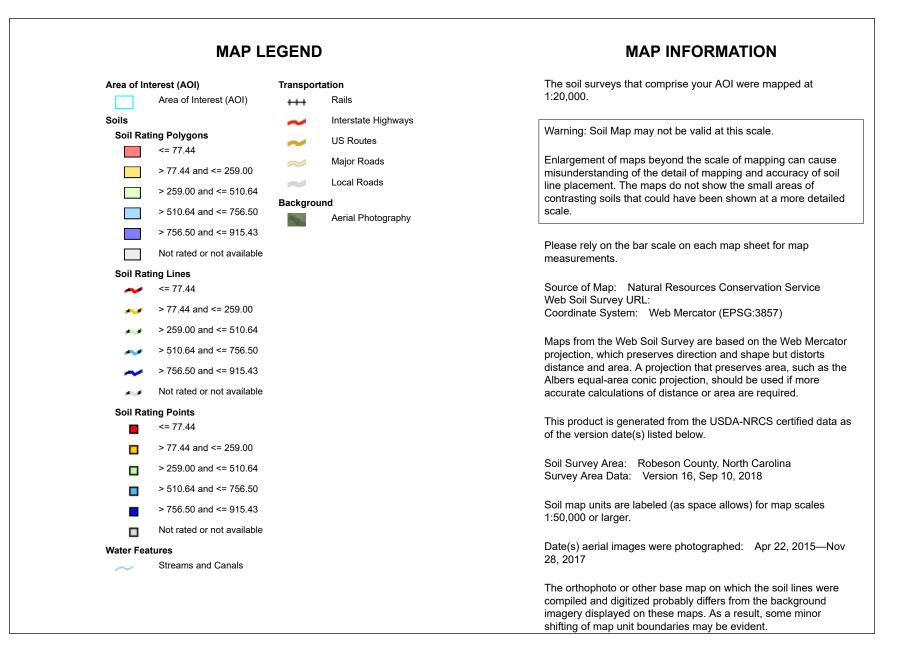
The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby areas and results of field trials and demonstrations also are considered.

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, and green manure crops; and harvesting that ensures the smallest possible loss.

The estimated yields reflect the productive capacity of each soil for the selected crop. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change.

Custom Soil Resource Report





Table—Yields of Non-Irrigated Crops (Component): Cotton lint	t
(Lbs)	

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI		
ВВ	Bibb soils		1.6	1.6%		
Со	Coxville loam	671.05	15.8	16.7%		
Dn	Dunbar sandy loam	510.64	0.5	0.6%		
GoA	Goldsboro loamy sand, 0 to 2 percent slopes, Southern Coastal Plain	915.43	26.6	28.0%		
Ly	Lynchburg sandy loam, 0 to 2 percent slopes	756.50	12.5	13.2%		
Ме	Meggett fine sandy loam	77.44	12.5	13.1%		
NoA	Norfolk loamy sand, 0 to 2 percent slopes	857.14	22.8	23.9%		
Ra	Rains sandy loam, 0 to 2 percent slopes	259.00	2.7	2.9%		
Totals for Area of Intere	Totals for Area of Interest			100.0%		

#### Rating Options—Yields of Non-Irrigated Crops (Component): Cotton lint (Lbs)

Crop: Cotton lint Yield Units: Lbs Aggregation Method: Weighted Average Component Percent Cutoff: None Specified Tie-break Rule: Higher Interpret Nulls as Zero: Yes

# Forest Productivity (Tree Site Index): loblolly pine (Coile, Schumacher 1953 (690))

The "site index" is the average height, in feet, that dominant and codominant trees of a given species attain in a specified number of years. The site index applies to fully stocked, even-aged, unmanaged stands.

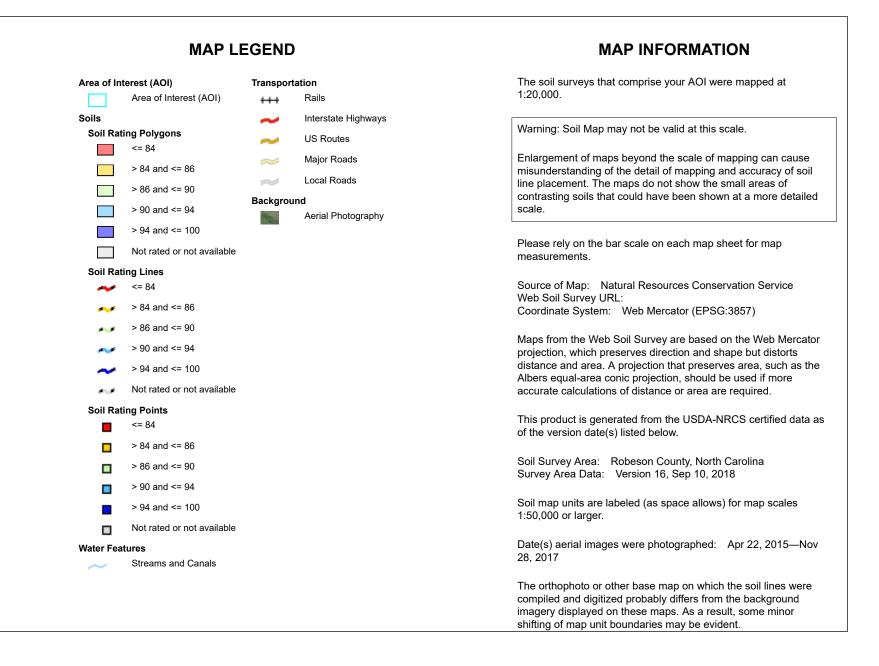
This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this attribute, only the representative value is used.

Custom Soil Resource Report Map—Forest Productivity (Tree Site Index): loblolly pine (Coile, Schumacher 1953 ... 79° 5' 22" W 79° 4' 45''W 675300 676100 675400 675500 675600 675700 675800 675900 676200 676000 34° 32' 29" N 34° 32' 29" N 3823800 3823800 3823700 3823700 Ra 3823600 3823600 NO 3823500 3823500 Ly CoA 3823400 3823400 Co Co 3823300 3823300 3823200 Co 3823200 3823100 CoA 3823100 3823000 3823000 Lу 3822900 3822900 NoA 3822800 3822800 3822700 3822700 Soil Map may not be valid at this scale 3822600 34° 31' 48" N 34° 31' 48" N Т Τ Т 675400 675500 675600 . 675700 675800 . 675900 . 676000 676100 . 676200 79° 5'22" W 79° 4'45" W Map Scale: 1:6,210 if printed on A portrait (8.5" x 11") sheet. Meters 300 100 200 50 
 0
 50
 100
 1200
 1800

 0
 300
 600
 1200
 1800

 Map projection: Web Mercator
 Corner coordinates: WGS84
 Edge tics: UTM Zone 17N WGS84

 39
 \_\_\_Feet 1800



Map unit symbol	Map unit name	Rating (feet)	Acres in AOI	Percent of AOI
BB	Bibb soils	90	1.6	1.6%
Со	Coxville loam	94	15.8	16.7%
Dn	Dunbar sandy loam		0.5	0.6%
GoA	Goldsboro loamy sand, 0 to 2 percent slopes, Southern Coastal Plain	88	26.6	28.0%
Ly	Lynchburg sandy loam, 0 to 2 percent slopes	86	12.5	13.2%
Ме	Meggett fine sandy loam	100	12.5	13.1%
NoA	Norfolk loamy sand, 0 to 2 percent slopes	84	22.8	23.9%
Ra	Rains sandy loam, 0 to 2 percent slopes	94	2.7	2.9%
Totals for Area of Inter	est	1	95.0	100.0%

# Table—Forest Productivity (Tree Site Index): loblolly pine (Coile, Schumacher 1953 (690))

# Rating Options—Forest Productivity (Tree Site Index): loblolly pine (Coile, Schumacher 1953 (690))

Units of Measure: feet Tree: loblolly pine Site Index Base: Coile, Schumacher 1953 (690) Aggregation Method: Dominant Component Component Percent Cutoff: None Specified Tie-break Rule: Higher Interpret Nulls as Zero: No

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