

Understanding the Soil Test Data Summary

The annual soil test summary is provided for each county, region, and the entire state based on crop designation or crop grouping used when samples were submitted for analysis. There are four regions of importance: eastern, coastal plain, piedmont and mountain, as shown in Figure 1 below. The eastern region is actually a part of what is geographically designated as coastal plain and is sometimes referred to as the Tidewater region. This region was designated to capture the large acreage of organic soils that are uniquely different than soils typical of the coastal plain. There is also a soil class summary based on soil class as related to humic matter that helps capture data as affected by organic matter. For more information, about soil class, humic matter and organic matter, please refer to <http://ncagr.gov/agronomi/obpart1.htm#sca>. If a given crop or crop grouping is not found in the summary, there were insufficient samples submitted for that year.

Data are summarized for 16 of the soil testing parameters. Information about these parameters is found at the above link.

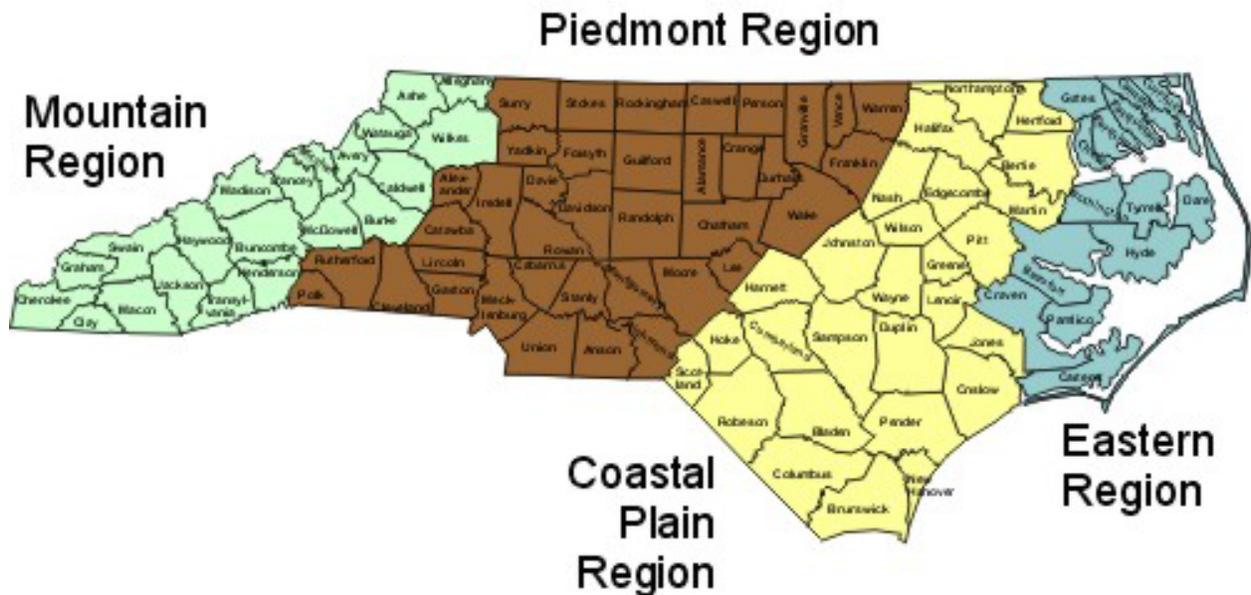


Figure 1. Soil test regions of North Carolina

For the parameters CEC, Ac, BS%, HM%, W/V and S-I, the data are grouped into five columns labeled 1 through 5. Note that the HM% is listed as OM% (organic matter). Use Table 1 to find the number or percentage of samples within a range of a given parameter.

For P-I, K-I, Ca%, Mg%, pH, Mn-I, Zn-I, and Cu-I, the data are grouped together in a 2 x 2 table. For example, P-K and K-I are grouped together. Data range totals for the parameter on the left of the 2 x 2 table are found on the far right as totals; data range totals for the parameter listed on top of the data grouping are found at the bottom as totals. Data for the two different parameters of various ranges can be found within the 2 x 2 matrix.

Table 1. Groupings as related to ranges of soil test according to various parameters as found in the soil test summaries.

Parameters	Summary Groupings				
	1	2	3	4	5
CEC (meq/100 cm ³) *	0–2.90	3.00–5.90	6.00–9.90	10.0–14.9	15+
AC (meq/100 cm ³)	0–0.90	1.00–1.90	2.0–2.90	3.00–3.90	5.0+
BS% (percent of CEC)	0–44.9	45.0–59.9	60.0–74.90	75.0–89.9	90+
HM% (humic matter) **	0–1.40	1.50–2.90	3.0–4.90	5.00–9.00	10+
W/V (g/cm ³)	0–0.54	0.55–0.74	0.75–0.94	0.95–1.29	1.30 +
S Index (S-I)	0–10	11–25	26–50	51–100	> 100

* Cation exchange capacity (CEC) = Sum of (Ac) + (Ca) + (Mg) + (K).

** HM% = Humic matter and represents the portion of organic matter that has decomposed into humic and fulvic acids. This value generally does not represent the total organic matter content within soils because the organic matter may not have decomposed into the humic state. However, as a general rule, if the humic matter content is very low (<1.0%), the total organic matter content is generally low also.

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