INDIANA SOIL TEXTURE SAMPLES
Explanation of columns in Table 1

a Sample number
b USDA texture class. This is shown in the texture triangle. In addition, for the sandy classes--sands, loamy sands, and sandy loams--the size of sand grains is part of the class name. For example, in a fine sandy loam (sample 1), the dominant sand size is fine sand (column I).
c, d, e These columns give the percentages of total clay, silt, and sand, based on a sample that went through a 2-mm sieve. They total 100%.

f, g, h, i, j, k, l These columns break down the silt and sand fractions (see table below). The total of these columns plus clay (column C) equals 100.

Size separate	**Diameter in mm**
Clay	< 0.002
Fine silt	0.002 - 0.02
Coarse silt	0.02 - 0.05
Very fine sand	0.05 - 0.10
Fine sand	0.10 - 0.25
Medium sand	0.25 - 0.5
Coarse sand	0.5 - 1.0
Very coarse sand	1.0 - 2.0

m 15 bar water The water content of a soil sample that started wet and then subjected to a suction of 15 bars (1.5, psi). It approximates the wilting point, the soil water content so dry that a plant growing in the soil wilts and does not recover. At this water content most water is held as a thin film around soil particles, so 15-bar water is related to the surface area of all soil particles.

n 15 bar/clay ratio Most of the surface area of a soil comes from the clay fraction, so for soils with little organic matter, there is a fairly consistent ratio of 15 bar water to clay of around 0.38 to 0.42. Soil organic matter also has a high surface area, so soils high in organic matter may have a high ratio. In soils with very little clay the ratio might not be reliable because a small difference in clay content could result in a large difference in the ratio.

o % C (carbon) Total carbon, made up of organic C and inorganic C. Carbon is a chief constituent of soil organic matter, but it is also in CaCO3 (inorganic C, column R). In soils that have very low CaCO3, total C is equivalent of organic C, and the organic matter content can be estimated by multiplying % C times 2. Soil samples with pH less than 7.0 usually have very low CaCO3 contents.

p %N (nitrogen). Practically of of N is from organic matter.

q pH H2O pH measured in a water suspension. Soils with a significant content of CaCO3 usually have a ph around 8.

r CaCO3 equivalent. This percentage is based on measured carbonate (CO3) and is calculated as if all of the carbonate is from CaCO3 (lime). In Indiana soils, most carbonate is from CaCO3, but some is actually from MgCO3, a component of dolomite. Carbonates may influence how a soil feels relative to its texture. Consider two samples with similar clay contents but one is high in CaCO3 and has none. Possibly the one with no CaCO3 feels like it has more clay because the clay in it is more sticky. We do not know if this is true. Check it out.

Table 2