Soil Volume and Texture

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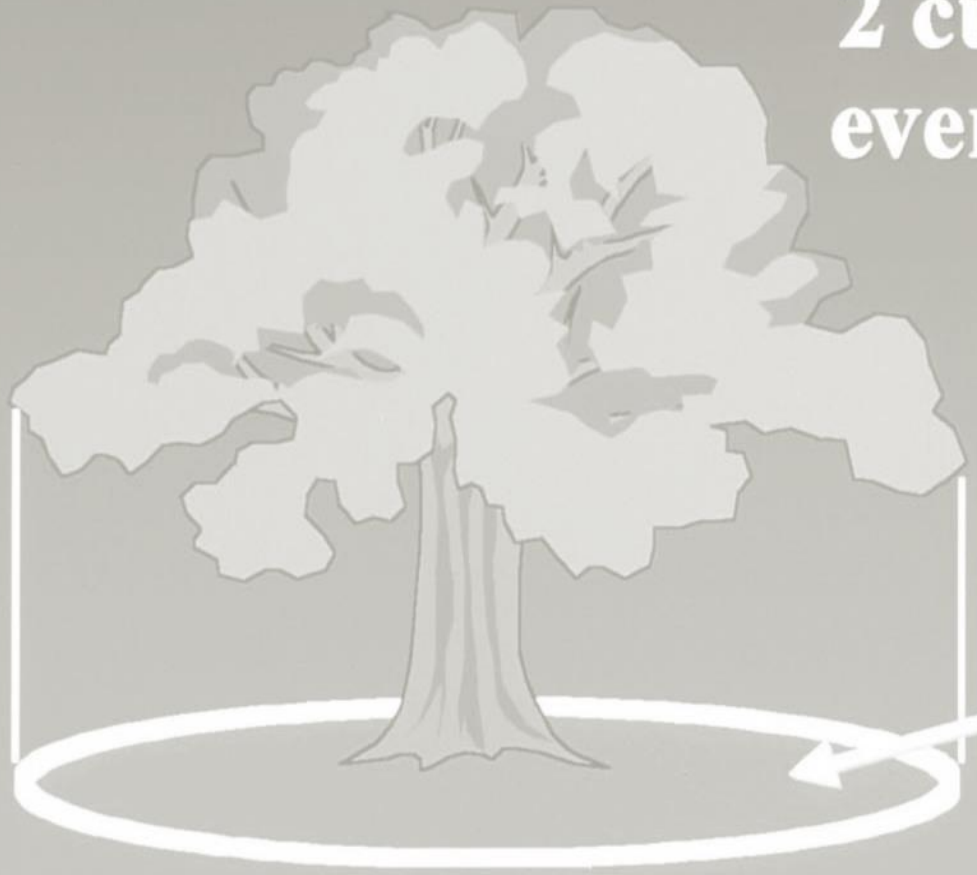
Soil Volume = 120 cubic feet

Soil Volume = 500 cubic feet

Soil Volume = 1000 cubic feet

How Much Soil Does a Tree Need?

2 cubic feet of soil for every 1 square foot of crown projection



N. Bassuk, Ph.D., Cornell UHI

How Large of a Tree (Crown Spread) will a 4' x 5' Tree Pit support?

Assume 1.5 cu ft soil/1 sq ft canopy.

Calculate: $\frac{\text{Total Soil Volume}}{\text{Soil Requirements}} = \frac{60 \text{ cu ft}}{1.5 \text{ cu ft}}$

$= 40 \text{ sq ft}/\pi$

Crown Radius = $\sqrt{12.73}$ ft

Crown Dia. = 3.57 ft x 2

7.14 ft OR $\cong$ 7 ft Crown Spread

How Large of a Tree (Crown Spread) will a 7' x 7' Tree Pit support?

Assume 1.5 cu ft soil/1 sq ft canopy.

Calculate: $\frac{\text{Total Soil Volume}}{\text{Soil Requirements}} = \frac{147 \text{ cu ft}}{1.5 \text{ cu ft}}$

$= 98 \text{ sq ft}/\pi$

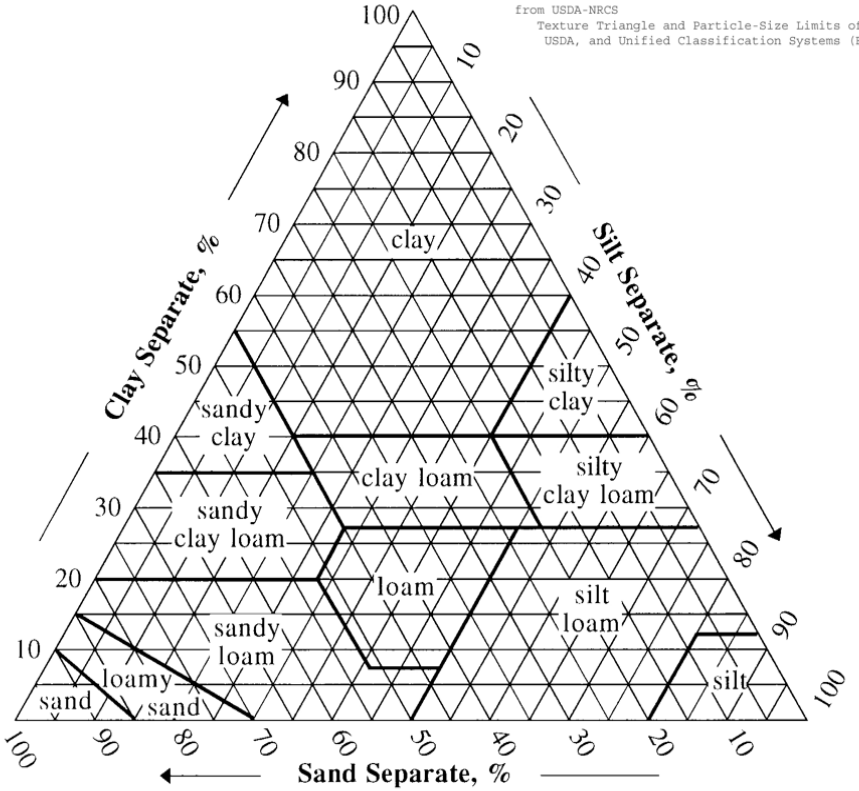
Crown Radius = $\sqrt{31.21}$ ft

Crown Dia. = 5.58 ft x 2

11.17 ft OR ≅ 11 ft Crown Spread

Field pH Test Kit

from USDA-NRCS
Texture Triangle and Particle-Size Limits of AASHTO, USDA, and Unified Classification Systems (Exhibit 618-8)



COMPARISON OF PARTICLE SIZE SCALES