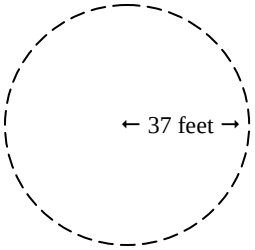
Estimating Firewood from Standing Trees

1. Choose an area that is representative of where you will be getting firewood.
2. Pick and mark a point to begin your measurements.
3. Measure a distance of 37 feet (using a rope or tape) from the point out. Repeat this procedure several times until you have created an imaginary circle around your point. This circle will be 74 feet in diameter and will represent 1/10th of an acre. (one acre equals 43560 square feet)
4. Measure the diameter (at 4 ½ feet about the ground) of each tree that you would harvest for firewood that is within the circle.
5. Refer to the table to tell you approximately how much each tree will yield in cords.
6. Add the yield of each tree to get a total volume in the sample circle.
7. Multiply the total by ten. This will give you the volume of firewood available on a per acre basis.
8. Repeat the procedure on a number of different plots to give you an average amount available.
9. The table can also be used to keep a running tally of how much you're cutting rather than waiting until the wood is all stacked.



Tree Diameter at 4 ½ feet	Number of Trees to Make a Cord	**Number of Cords Per Tree**
5″	50	.02
6″	20	.05
7″	12	.08
8″	8	.12
9″	6	.17
10″	5	.21
11″	4	.25
12″	3.5	.30
14″	2.5	.40
16″	2	.50
18″	1.5	.65
22″	1	1.00

Assume 4 inch top diameter (Based on research by Gevorkiantz and Olsen 1955)

Example:
In a representative sample plot (74 foot diameter circle) you count the following.

3 trees 5" diameter (3 x .02 cords/tree) = .06 cords
2 trees 8" diameter (2 x .12 cords/tree) = .24 cords
1 tree 10" diameter (1 x .21 cords/tree) = .21 cords
1 tree 12" diameter (1 x .30 cords/tree) = .30 cords

7 trees TOTAL = .81 cords

Firewood available per acre = 10 x .81 cords = 8.1 cords per acre.

prepared by Marshall Patmos, UNH Cooperative Extension Cheshire County Forester, retired

UNH Cooperative Extension 1/2005