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Reprinted July 1989

### 4-H FORESTRY FACT SHEET

Extension Forestry

### Land Measurement



All professional foresters are concerned with land measurements. Each 4-H Forestry member should become familiar with how land is divided and measured.

Units of measure that you should know are:

1 rod = 16 1/2 feet  
4 rods = 1 chain = 66 feet  
80 chains = 1 mile  
1 mile = 5,280 feet  
1 acre = 43,560 sq. feet

1 acre = 10 sq. chains  
1 acre square = 208.71 ft. on each side  
640 acres = 1 section = 1 mile square  
36 section = 1 township = 6 miles sq.

The sections in a township are always numbered in the same order starting at the northeast corner. On paper it would be the upper right hand corner and are numbered as in Figure 1. A section is usually divided into 1 quarter sections containing 160 acres each and are labeled as shown in Figure 2. After you have divided the section into quarter sections, each quarter section may again be divided into one sixteenth sections, containing 40 acres each. These are often called "Forties". The section will then look like the illustration in Figure 3.

Figure 1

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Figure 2

NW <sup>1</sup> / <sub>4</sub>	NE <sup>1</sup> / <sub>4</sub>
SW <sup>1</sup> / <sub>4</sub>	SE <sup>1</sup> / <sub>4</sub>

Figure 3

NW <sup>1</sup> / <sub>4</sub> of NW <sup>1</sup> / <sub>4</sub>	NE <sup>1</sup> / <sub>4</sub> of NW <sup>1</sup> / <sub>4</sub>	NW <sup>1</sup> / <sub>4</sub> of NE <sup>1</sup> / <sub>4</sub>	NE <sup>1</sup> / <sub>4</sub> of NE <sup>1</sup> / <sub>4</sub>
SW <sup>1</sup> / <sub>4</sub> of NW <sup>1</sup> / <sub>4</sub>	SE <sup>1</sup> / <sub>4</sub> of NW <sup>1</sup> / <sub>4</sub>	SW <sup>1</sup> / <sub>4</sub> of NE <sup>1</sup> / <sub>4</sub>	SE <sup>1</sup> / <sub>4</sub> of NE <sup>1</sup> / <sub>4</sub>
NW <sup>1</sup> / <sub>4</sub> of SW <sup>1</sup> / <sub>4</sub>	NE <sup>1</sup> / <sub>4</sub> of SW <sup>1</sup> / <sub>4</sub>	NW <sup>1</sup> / <sub>4</sub> of SE <sup>1</sup> / <sub>4</sub>	NE <sup>1</sup> / <sub>4</sub> of SE <sup>1</sup> / <sub>4</sub>
SW <sup>1</sup> / <sub>4</sub> of SW <sup>1</sup> / <sub>4</sub>	SE <sup>1</sup> / <sub>4</sub> of SW <sup>1</sup> / <sub>4</sub>	SW <sup>1</sup> / <sub>4</sub> of SE <sup>1</sup> / <sub>4</sub>	SE <sup>1</sup> / <sub>4</sub> of SE <sup>1</sup> / <sub>4</sub>



The main use of these subdivisions is describing property. For example, if you owned 40 acres in the northeast corner of the section 6, the description on your deed would probably read: the NE1/4 of the NE1/4 Section 6.

Here is an example of land measurement:

The Knotty Fir Lumber Co. owns the SE1/4 of the NW1/4 and the NW1/4 of the SE1/4 and the SW1/4 of Section 15, Township 12 South, Range 1 West. One day the company decided to send out their forester to cruise the timber on this area. The forester learns that the closest road in this vicinity runs north and south near the center of Section 14. The forester gets into the company pick-up and drives into the forest. When the forester reaches the north line of section 14, the section line marker (a section line marker is a board or tag telling how far it is to some known section corner) says that it is 1,965 feet east to the northeast corner of Section 14.

How many acres of land does the forester have to cruise? How far would the forester have to go west and south to reach the closest corner of the property? Make a diagram of the area that will be cruised.

NOTE: Our nation is considering converting to the metric system. As another exercise, you might like to try one of these exercises in metric figures.

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