The purpose of this lab is to teach you how to locate a set of cruise lines and sample points on a map so that you can systematically inventory the assigned stand for your final project.

1.) Use a dot grid to estimate the net acres in your stand. Show your calculations here.

2.) For the final project, your statistical objective will be to estimate the mean tons per acre such that you are 95 percent confident that you are within ±15 percent of the true mean tons per acre. You will use a CV = 45 percent for tons per acre. With this information, calculate the number of sample points necessary to achieve the stated statistical objective.

3.) How many acres does each sample point “represent”? How many square chains? (Recall that 1 acre = 10 square chains).

4.) What alternative grid spacings could you use to place the sample points calculated in question 2 in your stand (and on your map)?

5.) Locate a suitable starting point on the map. Tie this point into a feature that can be located on the ground (e.g., road, corner, etc.).

6.) Draw in the cruise lines and sample points on your map to scale. You will need to use a compass and a ruler to place your cruise lines and sample points on the map.