In a considerable portion of this country the problem of forestry is not a problem of forest or tree growth, but a problem of cut-over land utilization.

In very few exceptional cases the reforestation of cut-over or burned-over areas is or may be completed without man's help. As a rule, natural reproduction gives stands of unsatisfactory silvicultural density and timber of very little merchantable value. For example, stands of jack pine of small diameter, slow growing oaks, rotten suckers of aspen, or hardwood sprouts. Such stands will never pay the interest on money invested for taxes and fire protection. A sound commercial basis can be established only by means of artificial planting of valuable forest species.

In order to secure a maximum increment of growth and a maximum income from the reforestation enterprise, forestry has two means at its command: (1) Selection of seeds of the best origin, i.e. from the trees of best development and high producing ability; (2) Creating the condition of maximum harmony between the reciprocal influences of climate, topography, unweathered and weathered strata and underground water.

There is no difficulty as to the selection of good forest seeds, but the selection of areas best adapted to certain forest species, or even to a combination of species, is a complicated problem which may be solved only by means of a soil survey of the area to be planted.

The soil survey of the areas proposed for reforestation should be made with considerable carefulness as to the soil types recognized and with such accuracy as can be secured by traverse lines from one-quarter to one-half mile apart. It should be remembered that once established a plantation cannot be replaced during 50, 60 or even 80 years, and therefore, the surveyor is responsible for the results of all this long period investment.

In many cases of reforestation practice the information of a soil survey is replaced by planting the species which originally