foresters present will probably object to my basing Diameter-Volume curves upon the analysis of so few trees. The explanation is that we have only made a start in the work of studying growth of these species. Next year more stem analyses will be made, which, with those already obtained, will give a fair average for aspen, balm, white spruce and Jack pine.

To find the number of cubic feet of wood per acre for any given species, we first find out from the tally sheets how many trees of each diameter class there are per acre, multiply by the volumes indicated by the Diameter-Volume Curve of the species under consideration, and add together the products. In the case of trees less than a foot in diameter it is found that a standard cord of stacked wood contains only about 90 cubic feet of solid wood; hence if our figures indicate 1,080 cubic feet of wood per acre, we say that there are 12 cords to the acre. Where the trees are large enough for saw-timber we may scale the logs down to any given diameter, by whatever Log Rule is in use in the district, and then construct a curve showing the relationship between the breast high diameters of the trees and thei. merchantable contents in board feet. Our next diagram shows a curve of this nature, which naturally falls away below the total volume curve. (1) Because of the volume lost in the tops not large enough to make sawlogs; (2) The volume of the stumps; (3) The volume of the bark (about 15% for spruce), and (4) The loss due to sawdust, slabs, edgings and trimmings.

Turtle Mountain Reserve.

In the case of the Turtle Mountain Forest and Game Reserve, about 40 miles south of Brandon. Manitoba, Mr. R. D. Craig, B.S.A., F.E., late Inspector of Dominion Forest Reserves, found by the methods I have just described that the unburned area, of 1,611 acres, has standing on it enough small aspen to yield 19,825 cords of wood, of the balm 7,007 cords, of birch 7,695, of green ash 1,068, of burr oak 1,379 and of elm 593; a total of 37,567 cords. On the partially destroyed area of 6,371 acres the smaller living trees would yield about 39,520 cords of wood and the standing dead trees about 28,250 cords. The dead and down timber amounts to nearly ten cords per acre, or 63,710 altogether. Of the living trees large enough for saw timber it was found that the unburned area yielded 453 board feet per acre, and the partially destroyed only 122 board feet; making a total of about 1,507,000 for the whole tract. Thus the total stock was found to consist of 77,087 cords of green timber large enough for firewood, 91,960 cords of dry fuel and 1½ million board feet of small saw timber. The remaining 63,872 acres, 83% of the total area, include the lakes, open prairie-like spots and areas which have been completely destroyed by fires.