

three years an average of 425 permits have annually been granted to settlers, who have taken out 4,900 cords of fuel, 25,000 b. ft. of logs, 3,350 fence posts, 715 roof poles and 200 fence rails. As private land outside the Reserve becomes cleared and the population increases, the demand on the Reserve timber will become greater.

The present stand contains approximately 75,000 cords of green wood and 60,000 cords of dry wood, fit for fuel. About 1,333,000 b. ft. of saw material could be cut from the green wood. Though the amount of mature timber is small, there is a most excellent reproduction throughout the Reserve, which, from the standpoint of the forester, is the most important part of the stand. On account of their ability to throw up suckers, the aspen and balsam reproduce more readily than the other species and form respectively 69% and 12% of the reproduction.

From the data collected this summer the following table gives a conservative estimate of what may be expected from the dense stands of reproduction now one to twenty years old.

Age	No. trees per acre	Av. dia. Bk. inches	Av. height feet	Av. volume cubic feet	Yield per acre-cords
10	4,000	1.5	13.5	.1	4
20	2,500	3.2	28.0	.8	22
30	1,200	4.7	38.0	2.4	32
40	850	6.0	46.5	4.3	41
50	625	7.2	51.0	6.8	47
60	425	8.7	54.0	11.1	52
70	335	10.1	56.5	14.0	55
80	300	11.1	58.0	17.4	58

With a rotation of forty to fifty years, which would be sufficient for fuel production, an annual cut of one cord per acre or 55,000 cords could be made without reducing the capital stock. This amount would supply a farming area of over 2,000 square miles with fuel and fence material.

This supply of wood in the midst of a bare prairie country is of great value to the settlers and there is no reason why, if protected from fire and indiscriminate cutting, there should not be sufficient timber produced on the area now reserved to supply the local demand for all time to come.

In a plan of fire protection the first requisite is a system of trails which will enable the ranger to thoroughly patrol the Reserve and to quickly get to a fire. At present the greater part of the Reserve is inaccessible in summer. These trails will also act as fire guards and will often prevent the spread of fires before they reach large dimensions. Outfits of fire fighting tools should be kept at two or three convenient places ready for use. It is