

were dead at the beginning of the fortieth year, or, in other words, only one in fifty of the original trees was alive, that is, if we assume that the forest between 30 and 40 years old started in the same manner as the present stands less than 10 years old. Stated in another way, the death rate per acre was 5,000 yearly during the second decade; 300 yearly during the third, and 70 trees per acre yearly during the fourth decade. It will be seen that the death rate was still more pronounced in the case of the fir alone, since less than one in a hundred of the original trees was alive at the end of the fourth decade.

By referring to the percentage table above, one will see that the proportion of the hemlock gradually increases as the stands grow older. This shows that the hemlock can endure crowding and shading better than the fir. The tendency of the hemlock to crowd out the fir as the forest gets older seems to be a general rule in the coastal forests of British Columbia. This is particularly true in the better soil conditions, and, as stated in the preceding section, (p. 7), the hemlock is beneath the stands of fir on the poorer soils, ready to take the place of the fir as soon as it is removed, that is, if the natural conditions are not too violently disturbed.

In travelling through the southern coastal region of British Columbia one is impressed by the vigorous reproduction of Douglas fir, yet the occurrence of well-stocked stands of young fir is scattering and patchy in nature. The mature forests which will arise from these young stands will not be as continuous and uniformly distributed as the present mature forest, and consequently the forest area of the future will not yield as much saw-log material. This prediction is based on the fact that large areas of young forests are being periodically burned, and, when the young growth is killed by fire, little or no young growth of commercial trees comes in to take its place. The reasons for this will be discussed in the section on the influence of fire upon forest reproduction.

Hemlock Predominant	Stands in which hemlock predominated, covering large areas, were much less frequent than those in which fir predominated. Young hemlock stands were plentiful, but they occur in relatively small groups, usually on the better soils of depressions and flats.
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