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An Effects of Microorganisms on the Rapid Revegetation in Forest Roads

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For the purposes of facilitating neighboring plants' invasion and alleviating the spoiling of the scenic beauty, this study analyzes the soil improvement and revegetation effects by the use of biological preparations as a way of maximizing early afforestation of native species and thus inducing the quick shift to a natural plant community by regulating the rate of foreign and native species mix.

The content of total nitrogen (T-N) is 1.4% in the treated plot Group A, and 0.9 in Group C; the content of organic matter in Group A is 20.5, a much higher value than 7.7 in the controlled group C.

In the comparison of biologically treated plots with untreated ones, the botanical covering rate was 46.2% in the former, while 18.6% in the latter. When averaging the numbers of germinated plants at each group, the controlled group C showed 8.3, but biologically treated group A showed 22.7, which is a 2.7 times higher rate than the former. In case of the average height of bush clover, those in the biologically treated plots averaged 7.3cm and those in untreated plots averaged 7.1cm, showing not much difference.

In the comparison of the botanical covering rates and germination rates, 23 plants germinated in the treated group A with a covering rate of 46.2%, while 8 plants in the untreated group, showing a tendency that the germination rate in the former is higher than that in the latter. In this research, the more tree seeds germinated in the biologically treated plots with a high botanical covering rate while the germination rate of untreated plots was low.