

Original article

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## Evaluation of the Possibility of the Use of Fast-growing Aspen Forms for Laying Timber Plantations with a Short Turnover of Felling

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**Abstract.** The results of a long-term study of fast-growing triploid (giant) and diploid clones of aspen in the Sharyinsky Raion, Kostroma Oblast, Russia. Triploid clones Selected by A.S. Yablokov and S.N. Bagaev are significantly exceed the usual ones in terms of growth rate and productivity under optimal forest conditions. The silvicultural and taxation characteristics of giant aspen clones in the genetic reserve. Data on the dynamics of wood stocks and the resistance of triploid aspen to stem rot over a 60-year period in the genetic reserve of observations are presented. Infection with stem rot does not exceed 10 % of trees until the age of 50. The prospects for the use of fast-growing triploid and diploid clones of aspen for plantation forestry in the area of activity of modern timber industry enterprises is been determined. The possibility of accelerated production of elite planting material of triploid aspen by the clonal micropropagation method is shown.

**Key words:** forest plantation, triploid, diploid aspen, clone, genetic reserve, productivity, resistance, stem rot, clonal micropropagation.

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