

# Forestry Experience in Raising Larch Cultures in the Center of Russian Plain

## **M. D. Merzlenko**

*Institute of Forest Science Russian Academy of Sciences, Chief Scientist, Doctor of Agricultural Sciences, Uspenskoe, Moscow region, Russian Federation, root@ian.ras.ru*

## **P. G. Melnik**

*Institute of Forest Science Russian Academy of Sciences, Senior Researcher, Candidate of Agricultural Sciences, Senior Researcher, Uspenskoe, Moscow region, Russian Federation, Mytishchi branch of Moscow State Technical University. N.E. Bauman, Associate Professor melnik\_petr@bk.ru*

## **Yu. B. Glazunov**

*Institute of Forest Science Russian Academy of Sciences, Head of the Laboratory, Leading Researcher, Candidate of Agricultural Sciences, Uspenskoe, Moscow region, Russian Federation, yugla@inbox.ru*

## **S. L. Kuznetsova**

*Institute of Forest Science Russian Academy of Sciences, Graduate student, Uspenskoe, Moscow region, Russian Federation, solnce-sweta@mail.ru*

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*On the basis of 50-year studies, the experience of growing european larch in forest cultures of K. F. Tyurmer in Moscow and Vladimir regions and in Nikolskaya forest estate in the North-East of Moscow is analyzed. Cultures were grown by various methods using different schemes of mixing species. The results of long-term studies of these cultures are presented. Until the age of 30-40 years larch is significantly inferior in the growth rate of pine, and later ahead of it. Intensive tending of plantation at a young is required to maintain larch in mixed plantations with pine. In the future, larch inhibits pine and gradually almost completely replaces it, forming high-performance larch stands.*

*In the forest cultures of K. F. Tyurmer in the Moscow region at the age of 130-150 years, we had a large stock of larch trees on permanent sample plots (PSP). After 150 years, the stock of plantings begins to decline, the main reason is the windthrow, due to the abnormal height of the plantings. At the age of 130-150 years of culture reach natural maturity. On average, the largest stand volume of larch on PSP's was equal to 1140 m<sup>3</sup> per ha, and in general for plantations – 1265 m<sup>3</sup> per ha. Spruce forms the second layer, the stock of which varies from 28 to 197 m<sup>3</sup> per ha and an average of 112 m<sup>3</sup> per ha. The standing volume of survived pine trees does not exceed*

*37 m<sup>3</sup>/ha and on average is 13 m<sup>3</sup> per ha. The maximum volume of larch is 1497 m<sup>3</sup> per ha, while the total one of the stand was 1543 m<sup>3</sup> per ha.*

*Due to the large species and form diversity of larch, there are wide opportunities for creating crops with desired properties in forests of various purposes. This requires further research both to identify the most highly productive provenances and populations, and to establish the natural and technical maturity of larch forest cultures of a certain purpose.*