

## SURVIVAL OF STEPPE ARTIFICIAL OAK WOODS AND ITS EXTENSION OPPORTUNITY

*V. I. Jerusalimsky, PhD – Russian Research Institute for Silviculture and Mechanization of Forestry, Pushkino, Moscow region*

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*Longevity is one of the key indicators of forest plantation production success in steppe zone uplands. Various tree species plantations including oak ones established by government forest districts in black earth soils in 1st half of XIX century were short-life. It predetermined short rotation age setting for such plantations – 20–30 years and under 40 years to promote coppice regeneration.*

*Further studies found that key sources of plantations short life in black earth soils were not soil conditions as suggested but mistakes in selection of main species (for oak and associated species) ill-founded species mixture schemes, late oak cleaning.*

*Oak radial growth goes on until tree mortality. A decision was made to define mathematically possible oak wood longevity based on that. To get growth amplitude attenuation regressive analysis was done in 2 options with current diameter growth 2 mm and 1 mm. The analysis findings showed that oak wood longevity for the 1st soil group was 97–121 years, 2nd – 74–91 years and 3rd – 42–48 years.*

*The findings prove that predicted oak wood longevity indicators for south black earth and dark brown soil conditions published earlier were significantly underestimated.*

*It is proven by real age of the man-made oak woods in these soil conditions which sufficiently exceeds the fixed earlier indicators.*