Thinning experiment in the spruce and beech mixed stands on the locality naturally dominated by beech – growth, litter-fall and humus

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https://doi.org/10.17221/20/2009-JFS

Citation: Novák J., Slodičák M. (2009): Thinning experiment in the spruce and beech mixed stands on the locality naturally dominated by beech – growth, litter-fall and humus. J. For. Sci., 55: 224-234.

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In 1997, long-term thinning experiment Všeteč in Southern Bohemia was established in the young 19-year-old mixed beech and spruce stand. Three variants (0.10 ha each) were investigated: 1 – control unthinned plot (only salvage cut was done), 2 – plot with positive selection from above and 3 – plot with negative selection from below. The aim of this paper is to evaluate the first results from the eleven-year investigation (at the age of 19–29 years) focused on the effect of thinning on growth, species composition, litter-fall and humus in young mixed stands in this experiment. Thinning (both variants) resulted in decreased salvage cut (dead, broken and uprooted trees). Continual diminishing of spruce portion (started quickly after dry season in 2003 on control unthinned plot) was slow or soft on both thinned plots. Annual litter-fall in experimental young spruce and beech mixed stands at the age of 27–29 years varied from 4.6 to 5.5 thousand kg/ha and dry biomass of humus horizons L, F and H represented altogether approximately 91 and 128 thousand kg/ha on plots 3 and 1, respectively (plot 2 was omitted from this part of investigation).

Keywords:

thinning; spruce; beech; mixed stands; litter-fall; humus horizons

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SJR (SCImago Journal Rank – SCOPUS)

2017: 0.206 – Q4 (Forestry)

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Journal of Forest Science
Czech Academy of Agricultural Sciences

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