EFFICACY OF BIOLOGICAL CONTROL AGENT ROTSTOP IN CONTROLLING *HETEROBASIDION* INFECTION IN SPRUCE AND PINE STUMPS IN LATVIA

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Abstract. *The biological control agent Rotstop®, used in controlling Heterobasidion annosum s.l. infection in conifer stumps by spores of Phlebiopsis gigantea (Fr.) Jül., was registered in Latvia in 2007 for use in thinnings of Norway spruce (Picea abies (L.) Karst.) and Scots pine (Pinus sylvestris (L.)). The efficacy of Rotstop in Latvian forests was analysed in six experiments conducted during 2005-2010. Observations were made in several months of the year. Sample plots were established in thinnings and final cuttings. Samples from experiments were collected after 1-12 months. In total 178 Rotstop treated stumps of Norway spruce and 130 stumps of Scots pine were analysed. Control stumps (133 spruce and 90 pine) were also sampled. Control efficacy against Heterobasidion spp. was calculated on the basis of number of infected stumps and area occupied by Heterobasidion spp. on sampled stumps. Mean efficacy in controlling natural infection by Heterobasidion in spruce stumps was 63% as calculated on the basis of infected stumps, and 89% as calculated on the basis of infected wood on sample discs cut from the stumps. The corresponding figures for pine were 82% and 95%. The results show that this biological control agent can be successfully used for stump treatment in Latvia, although improved efficacy is desirable. A Latvian strain of P. gigantea, selected from numerous isolates in preliminary tests, was used in one experiment, and it proved as effective as the Rotstop strain.*

Key words: *stump treatment, Rotstop, Heterobasidion.*