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BOOK OF ABSTRACTS
TREE SPECIES SELECTION FOR REFORESTATION AND CONVERSION ACTIVITIES IN THE VIEWPOINT OF CLIMATE CHANGE

New climate and social circumstances created need for adapted approaches to forest management. Forest degradation should be addressed with fast establishment of efficient forest ecosystems. Hence, new silvicultural solutions are important for the establishment of more resistant and resilient forests to prevent or alleviate impact of growing biotic and abiotic threats to forest ecosystems and to lower financial and ecologic losses. Drought and pathogen resistance, stability against winds, lowering pathogen connectivity and prevention of occurrence and spreading of forest fires are priority restoration tasks. Selection of new species mixtures, tree species, provenances and adoption of new silvicultural principles such as selection of optimal forest reproductive material and planting techniques are newly arisen possibilities in adaptation efforts. The background of all reforestation and conversion activities is appropriate forest reproductive material and its availability, especially in respect to tree species, provenances and appropriate seedling type. Paper presents data collected during expert supervision of nursery production in Croatia, which Croatian Forest Research Institute (Division for silviculture) conducts on the year basis from 1992. The highlight is given to the production of noble native broadleaved tree species as well as non-native tree species, which showed good growing success and low introduction threats/risks. It includes data in the period 2013-2017. This paper is contribution to knowledge on new silvicultural solutions in the frame of adaptive forest management. In addition, it provides insight into nursery production of noble and non-native tree species. List of proposed noble and non-native tree species is provided and compared to five year seedling production, pointing to the need of change in nurseries production programme. Beside native noble tree species, species which excel among non-native tree species in restoration activities are Douglas fir, Black walnut and Northern red oak. Nevertheless, data point to the conclusion that existing nursery production in Croatia does not provide good background for reforestation and conversion activities, nor it settles growing needs for restoration activities in general. All analysed parameters underline significance of nursery production but also point to the need of harmonisation of existing production with growing needs.