The specifics of the growth of beech seedlings (*Fagus Sylvatica* L.) of different geographic proveniences in the "Plaiul Fagului" Scientific Reserve

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The aim of the conducted researches is to assess the particularities of growing in height and diameter of the beech (*Fagus sylvatica* L.) seedlings in the habitat of the "Plaiul Fagului" scientific reserve, obtained from seeds that were harvested from populations of different geographical origins. The researched provenances originate from: the "Plaiul Fagului" scientific reservation, compartment 26C (Republic of Moldova); Strâmbu Băiuț forest district, UP II, compartment 76C (România) and Ivano-Frankivsk – State Enterprise "Nadvirnyanske Lisove Gospodarstvo", Nadvirna district, compartment 6(1) (Ukraine). The seeds were sown in the fall of 2020. According to the height and diameter growth particularities of the seedlings, in the cultures where they originate from, the beech can be considered as a variable species. Seedlings from Plaiul Fagului, compared to those from Băiuț and Ivano-Frankivsk, are distinguished by a current growth energy in height and diameter, which suggests that the population of local origin has a higher genetic load, being better buffered for these seasonal conditions. At this stage of development, the ecological factors of forest crop area do not significantly influence the speed of growth of the studied seedlings. The dispersion analysis of the heights (cm) according to origin are totally different (PL - 46.59 ± 2.55; Băiuț - 44.55±2.98; Ivano-Frankivsk - 37.35±3.98). The degree of influence between provenances is reduced, constituting 16%, and the degree of influence within provenances is 84%. The dispersion analysis of the diameters (mm) by origin are totally different (PL – 7.15±0.38; Băiuț-6.14±0.45; Ivano-Frankivsk - 5.06±0.61). The degree of influence between provenances is reduced, constituting 28%, and the degree of influence within provenances is 72%.
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Key words: *Fagus sylvatica* L.; "Plaiul Fagului" scientific reserve; Republic of Moldova; beech seedlings