

THE VARIATION OF SOME BEECH SOURSES CHARACTERS IN COMPARATIVE CULTURE BAIA SPRIE-CĂRBUNARU-MARAMUREȘ

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SUMMARY

In the comparative culture of descent placed at Cărbunaru, Baia Sprie forest management unit, in the Maramureș County, 26 beech (*Fagus sylvatica* L.) descents were analyzed, representative to eight European countries, including our own, the seedling plants used in the setting up of the culture being two years old and coming from the nursery of the Institute of Forest Genetics in Schalembek, Germany. The culture's area of settlement is H2-Dealurile Ciceului (Ciceului Hills), subzone H240-hilly beech woods, while the experimental appliance for the culture was a 3x4 rectangular railing, with three repetitions, completely randomized, each unitary lot covering 10x10 m, and being made up of 50 plants placed on five rows with a 2 meter distance in between and 1 meter distance within the row.

Measuring and observations took place 8 years after planting and concerned the following features: survival (%), total height (cm), base diameter (cm) and forking (indices). The values measured in percents were transformed in $\arcsin \sqrt{x}$, the rest of the results being processed by means of statistical mathematics. The statistic parameters for performing a study regarding inter-population variation of the various measured or observed features were determined and they led to the conclusion that, when it comes to adaptive features, namely survival, the variation of this character was medium, whereas for the quantitative features of the trunk, the inter-population genetic variation was large, the amplitude of variation of the specimens being very different from one descent to the other, varying from very narrow to very large. As to some qualitative features of the trunk, such as forking, the inter-population variation was very large, none of the descents comprising only non-forked trees.

In conclusion, the Romanian descents used in the comparative culture, namely 150-Sovata (25)-Romania and PL-Cărbunaru-Romania, presented values of the analyzed features that surpass the average of the experiment, except for the trunk base diameter, where the local descent PL-Cărbunaru-Maramureș had values high above the average for this feature.

REFERENCES

1. Enescu, V., N., Doniță, C., Bândiu et al., 1998, Zonele de recoltare a semințelor forestiere în R. S. România, Redacția de propagandă tehnică agricolă, București, 61 p.
2. Ienciu, Andra, 2005, Cercetări de variabilitate în arboreta naturale și culturi comparative de fag (*Fagus sylvatica* L.) din vestul țării, teză de doctorat (coordonatori: Enescu, V., Doniță, N.), Brașov, 270 p.
3. Statistica, Complet Statistical System, StatSoft, Inc., 1991.