

## THE SPREAD OF *KOELREUTERIA PANICULATA* LAXM. UNDER ECOLOGICAL CONDITIONS IN THE REPUBLIC OF MOLDOVA

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*Koelreuteria paniculata* Laxm. is a woody plant native to China, Korea and Japan. Grows to 8-10 meters in height. It is used for landscaping purposes, and also has honey-keeping properties. It prefers warm, sunny, frost-free, fertile soils, but also tolerates compacted, dry soils and even poor soils. She has a light temperament. Being a rare species in Moldova, the ecological, economic and social benefits of *K. paniculata* are little known.

The aim of the study is to analyse the natural framework in the Republic of Moldova where the species *K. paniculata* is widespread.

The research material consisted in the analysis of parcel descriptions from the forestry offices Olanesti (Tighina Forest Enterprise) and Taraclia (Silva-Sud Cahul Forest Enterprise), where *K. paniculata* is included in the composition of stands.

In order to achieve the aim, the method of bibliographical documentation, observation, analysis and synthesis was used.

The studied territory falls zonally in the moderate-continental climate sector, which is characterized by mild and short winters with little snow and warm summers, long-lasting, with a low amount of precipitation.

In the Republic of Moldova *K. paniculata* is generally widespread on plateaus and slopes, with a flat configuration. Altitudinally between 88-151 m, on west- and north-west-facing slopes (partly sunny). In relation to the slope of the land, most surfaces have a slope between 6-8 degrees. The most common soil types and subtypes on which the species is found are: typical chernozem soils, carbonate soils, cambic soils and typical erodisols. The most suitable forest stands are of hilly forest of cvercete with plantation-cultivated plantations, on slopes with varied exposures, ravines, with eroded soils, carbonate soils, deflooded, deteriorated, originating from chernozem, hydrologically deficient, of poor quality, and dialuric stalky forest on plateaus and slopes with low to moderately sloping, cambic, typical, carbonaceous chernozoniomic, carbonate, chernozicomoid soils, of poor quality. After analysing the vegetation in the study area, 2 types of forest were identified: sylvo-steppe forest, and pedunculate forest with prickly pear and poplar maple, both of lower productivity. The majority of the stands analysed with *K. paniculata* are artificial with lower productivity. This species grows to heights of 4-9 m with diameters of 6-16 cm at ages of 10-52 years. The average volume of wood mass per hectare is 2-16 m<sup>3</sup>/ha. Average volume growth varies between 0.2-1.0 m<sup>3</sup>/ha.

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