Abstract
The research was carried out in the Iarac forestry nursery in the O.S. Iuliu Moldovan during 2010-2011, on an alluvial soil (the vertical-gleyed subtype). The placement of the sample markets was carried out according to the “divided parcels method” in two repetitions, and the surface of a parcel was 450 m². The present paper displays the results obtained after the sprinkler irrigation, when we determined the quantity of water spread by the 6 sprinklers on a 15m-radius, placed on the direction of the cardinal points. The purpose of the research was to observe the correlation between the qualitative work indexes of the sprinkling devices, by spreading a uniform quantity of water on the entire surface and the maintenance of an ecological balance of cultivation of the saplings in the forestry nursery. In a close connection with the purpose stated, the paper also focuses on the study of the work indexes of the sprinklers used in forestry nurseries, among which the most important is the uniformity of sprinkling. The uniformity of sprinkling, the intensity of watering, the fineness of the rain, and the energy of the drops are also called qualitative indexes or the sprinkling’s characteristics- key elements for the assessment of the sprinkling irrigation devices.
Sprinklers are active organs of the watering devices. They can transform the water pumped out into drops which can be spread on the surface that needs irrigation. The main means used for the improvement of sprinkling uniformity are the following: the usage of sprinklers with a small radius of sprinkling, having correct pluviometric curves; the correct placement of sprinklers on the terrain, according to the schemes of work recommended; avoiding to water when the speed of the wind surpasses the speed limit established for the sprinklers used.

Key words: sprinkler, sprinkler irrigation, uniformity of sprinkling, qualitative indexes of the sprinkling