Effect of Organic Matter Combination with Soil, on Above-ground Biomass of Two Needle-leaved Species

(Cupressus arizonica, C. sempervirens var horizontalis)

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Although chemical fertilizers are used for increasing plant growth but their continuous utilize has caused environmental pollution. Mazandaran province confronts with pollution problems originated from chemical fertilizers. In this research organic matter was used instead of chemical fertilizers. Effect of organic matter combination with soil on above-ground biomass of two needle-leaved species (Cupressus arizonica, C. sempervirens var horizontalis) was investigated in eight different soils mixed with components of cattle manure, sand, pyran and litter in forest nursery of Kolodeh, located in Amol city. For this purpose the seeds were placed in 1280 plastic pots in a completely randomized design (CRD) with four replications and 20 plots in February 2006, then were sown. In late spring 2007 the above-ground organs of the seedlings were cut. After measuring their fresh weight, the oven-dry weight (55 °C and 36 hours) were determined. The results revealed that the biomass of species were not affected by soil treatments (P> 0.05). The relationship between fresh mass and dry mass was significant (P<0.05).

Keywords: Above-ground biomass, Organic matter, Cupressus arizonica, C. sempervirens var horizontalis, Kolodeh nursery

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