



Canopy Structure in Relation to Rainfall Interception

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Spatial variation of throughfall (*TF*) is linked to canopy structure. The effects of canopy structure on the spatial redistribution of rainfall in deciduous stands remains poorly documented. Therefore, the objective of this study is to evaluate the influence of canopy structure such as stand density on the partitioning of incident rainfall when passing through the canopy of Brant's oak (*Quercus branti*) forest stands. The study site is the Zagros forests in the western Iranian state of Ilam, protected forests of Dalab region. Twelve *TF* plots (50 m × 50 m) with 30 gauges randomly placed within each plot were established. Interception loss was computed as the difference between rain and *TF*. Canopy cover (%) and leaf area index (LAI, m² m⁻²) were estimated from the analysis of hemispherical photographs obtained during the fully leafed period. Relative interception varied from ~4% at 0.1 LAI and canopy cover of 10% to ~25% at 1.5 LAI and canopy cover of 65%. Interception represents a significant component of the seasonal water balance of oak forests, particularly in the case of intensive plantings.

Keywords: Canopy Structure, Rainfall redistribution, Zagros forests, *Quercus branti*