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EVALUATION OF MORPHOLOGICAL CHARACTERISTICS IN SOME ECOTYPES OF SUMAC (RHUS CORIARIA L.) IN THE CENTER OF IRAN

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Sumac (*Rhus Coriaria* L.) grows wild in some temperate and subtropical regions of Iran. It is belonging to the Anacardiace family and has long been used as a flavoring spice and traditional medicine. The leaves and fruits of sumac are recognized to have defensive and beneficial effects on a wide set of disease. This survey was carried out in order to evaluating, morphological characteristics of sumac in the central part of Iran in 2016. The results of variance analysis showed that there are significant differences among the morphological characteristics. "Firizhand" ecotype had the highest length (5.55 cm) and width (2.70 cm) of leaf. The highest number of leaflets was related to "Yahya Abad" and the longest fruit cluster was measured in "Firizhand and Torgh" ecotypes. Cluster weight and weight of 100 fruits had the highest (25.45%) and the lowest (2.28%) coefficient of variation. The highest correlation ($r= 0.961$) was observed between 100 fruits weight and 100 seeds weight, also there was a positive correlation ($r= 0.842$) between spad value and weight of 100 fruits. In terms of cluster analysis, ecotypes were grouped in to 3 clusters, with 3 ecotypes in cluster 1 ("Pashandegan", "Baghestan" and "Torgh"), 2 in cluster 2 ("Yahya Abad" and 'Firizhand") and finally 1 ("Malmir") in cluster 3, based upon similarity and dissimilarities. Our results revealed that there is a significant diversity among studied ecotypes that can be used in germpelasm management and breeding programs of sumac.

Keywords: Cluster analysis, correlation, ecotype, germplasm, Rhus Coriaria