

## CORRELATION AND PATH-COEFFICIENT ANALYSIS OF GROWTH CHARACTERISTICS OF SOME ORIENTAL TOBACCO CULTIVARS.

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### ABSTRACT

Three oriental tobacco cultivars (*Nicotiana tabacum* L.) were used in this experiment (Gul spy , Gul sor and Samsun-1) with four seedling ages (7 , 8 , 9 and 10 Weeks) after planting to study the effect of correlation and path-coefficient analysis for dry weight of seedling leaves on growth characteristics for three Oriental Tobacco Cultivars seedling . A randomized complete block design in the split plot a management with three replications was used. The main plot contained the cultivars, while the sub plot seedling ages .

The results showed that the cultivars significantly differed for characters: seedling length, stem diameter and root length, fresh and dry weight of leaves/seedling and percentage of dry matter in the leaves. So the results showed a positive highly significant Correlation between root length with seedling length, stem diameter and with seedling length and stem high with fresh weight of leaves/seedling and dry weight of leaves/seedling .

The study showed that fresh weight of leaves/seedling was most important character which has indirect effect positive and highly significant through characters stem high and root length, root length character had most important direct effect on dry weight of leaves seedling .

The results showed that the genetic variation values were highly for most traits, so the environmental variation values were highly for stem high. Broad sense heritability values highly for all traits, except stem high. The results showed decrease heritability value because increase the genotype and phenotype variation values . The results showed that the determination coefficient values were highly for characters: fresh weight of leaves/seedling , stem diameter and root length.

**Key words :** Tobacco seedling , Cultivars , correlation and path-coefficient analysis.