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CORRELATION AND PATH COEFFICIENT ANALYSIS IN OATS (AVENA SATIVA L.)

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ABSTRACT

Highly significant differences were observed among ten oat varieties for green fodder yield and its components. Heritability was also found to be higher for the plant height, stem thickness, tillers per plant, leaf area and green fodder yield per plot characters under study. Genotypic correlation coefficients were higher than their corresponding phenotypic correlation coefficients. All the characters except leaf area showed positive direct effects on green fodder yield in both the years of study. Selection for more plant height, thick stems, and higher number of tillers is suggested to improve the fodder yield.

INTRODUCTION

Cultivated oats (Avena sativa L.) is the second useful fodder of the winter season. It is mostly grown near urban areas and at horse farms, but common farmers normally grow it as a mixture with berseam. The association of component characters with green fodder yield could be assessed either through partial or multiple regression analysis or through path coefficient analysis. Since information on this aspect is scanty in oats, a study was conducted to judge the direct and indirect effects of various quantitative characters on its fodder yield. An attempt was also made to identify the characters based on which selection would lead to genetic amelioration by calculating phenotypic and genotypic coefficient of variability and heritability in broad sense. Bhagmal et.al.