PERSPECTIVE OF DIMENSION REDUCTION IN THE STUDY OF GENOTYPE-ENVIRONMENT INTERACTION USING ROUGH SET THEORY

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ABSTRACT

In agricultural experimentation, a large number of genotypes are generally calibrated over a wide range of environments. The genotypic values under different environment may increase or decrease as per there conditions. In plant breeding programs the effects of different genotypes are tested under the multi-environment such type of combined investigation is termed as the Genotype x Environment (G x E) Interaction. In the present study, the concept of Rough Set Theory (RST) isadopted to reduce the number of environments without loss of generality of original experimental dataset.

KEYWORDS: Discernibility Function, Discernibility Matrix, Genotypic Variation, Genotype x Environment Interaction, Dimension Reduction etc