

Software for Molecular Binary Data Analysis

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Abstract

“Molecular Binary Data Analyses Software” is developed using Visual basic 2008 integrated development environment at front end and SQL server at back end. It is interactive software that stores and retrieves information according to the choice of user and performs data analysis. Visual Basic (VB) 2008 not only allows programmers to easily create simple GUI applications, but also has the flexibility to develop fairly complex applications as well. Programming in VB is a combination of visually arranging components or controls on a form, specifying attributes and actions of those components, and writing additional lines of code for more functionality. “Molecular Binary Data Analyses Software” is designed to store and analyze profile tables of crops fingerprinted. Software is dedicated to store all necessary information regarding varieties and primers in profile tables. In addition to that, it performs some of the important statistical analyses. Module for Jaccard’s, dice and simple matching coefficient analysis of the software helps to know similarity between two varieties. Facility is made to do comparison between varieties by one to one or one to many, within table or across two tables. In order to find best informative primer, modules of polymorphic information content and average number of bands per cultivar analyses is used. Genetic relationships among different primers are found by using gene diversity and resolving power analyses. Module of barcode generation develops band map for all primers in a particular profile table. The Help module is developed to provide working assistance to users. Facility has been developed to upload data directly from MS Excel worksheet to database. In addition to that profile table of already stored data in database can be saved at desired location to do any modification if required. Different types of reports were developed for different types of analyses. This software is available at <http://202.141.12.147/molecular040513/start.aspx>.

