Ulasan Kajian Filogenetika Molekuler dan Peranannya dalam Menyediakan Informasi Dasar untuk Meningkatkan Kualitas Sumber Genetik Anggrek

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Abstrak

Molecular Phylogenetic Studies in Providing Basic Knowledge to Improve Quality of Genetic Resources of Orchid. Topik Hidayat and Adi Pancoro. Early information resulted from molecular phylogenetic studies of many im-portant ornamental crops is often less attention to many growers and farmers. Phylogenetics is one of the most pre-ferable method in systematics to reconstruct evolutionary relationships of groups of biological organisms in order to understand their biodiversities. This has been revolutionized by DNA sequences data. In this method, a group of organ-isms that shares many identical characteristics are con-sidered to be closely related; deriving from a common ancestor and is assumed to have similar genetic patterns and biochemical properties. By these basic principles, molecular phylogenetics plays important roles in revealing a basic knowledge on pattern of relationships to which genetic resources can be improved. Over the past decade, botanists have done several thousand phylogenetic analyses based on molecular data of economically and horticulturally important crops. Orchids are the best example for this. There is no doubt that most orchid plants had played roles in horticulture and hybridization. At present, many infrageneric and intergeneric hybrids are available commercially. Suc-cessful hybridization can be achieved if two or more individ-ual plants understudy are closely related in respect to their genetics and evolution.