

INTERSPECIES, RECIPROCAL AND SELFING COMPATIBILITY TEST OF VANDA ORCHID (*Vanda* sp.)

By: Liska Nurlitasari

Supervised by: Bambang Supriyanta

ABSTRACT

Kinship relationships and compatibility can be used as the basis for assembling potential genotypes in crosses. This research aims to obtain a compatible crossing method for *Vanda* sp. orchids. The research method used was descriptive analysis method. Morphological characterization research data were analyzed using NTSYS version 2.10e (Numerical Taxonomy and Multivariate Analysis System) with UPGMA (Unweighted Pair Group Method with Arithmetic mean) method functioning SIMQUAL (Qualitative Similarity) and compatibility test research data were analyzed using descriptive analysis. The results showed that the characteristics of the crossing parents of *Vanda* sp. orchids have differences in leaf firmness, leaf length, leaf width, leaf spacing, sepal and petal cross-section, lip curve location, lip tip shape, pattern color and base color on sepals and petals, base color of flower lips, curvature of the side chip, lip cross-section shape, lip stigma, lip tip shape, pollinia shape, aerial root length and total of aerial roots. The kinship relationships between the parents of *Vanda* sp. orchids shows a very close relationship because it has a similarity value $\geq 70\%$ on the dendrogram, which is 76%. The cross between the three elders of *Vanda* sp. was declared fully compatible because it was able to produce harvested fruit $\geq 60\%$. Interspecies crosses produced 89% harvested fruit, reciprocating produced 83% harvested fruit and selfing produced 89% harvested fruit.

Keywords: Vanda, Kinship, Crossing, Compatibility.