

SUMMARY

Agustin Nurma Nilasari. 0610423002-42. Identification Diversity Morphology of Mango Leaf (*Mangifera indica* L.) In Plants From Result Crosses Between of Varieties Arumanis 143 with Podang Urang 2 Years. Under The Guidance of Ir. JB. Suwasono Heddy, MS. And Prof. Dr. Ir. Tatik Wardiyati, MS.

Mango fruit is a fruit plant that has the potential to be developed because that have a high level of genetic diversity. Difficulties encountered in mango breeding is the least amount of germplasm obtained, nature and flowers panikula complex, low-level of success in pollination. The research was purpose to find out the morphology diversity of mango leaf can be used as a means of early detection of diversity leaf morphology from crosses of mango varieties Arumanis 143 with Podang Urang The hypothesis of this study is that there diversity morphology of mango leaf in plants from result crosses between of varieties Arumanis 143 with Podang Urang. The variation is quite high on the shape, size and color of mango leaves showed a wide genetic diversity. Identification leaf morphology from result crosses between species (intraspecific) or between properties new and unique properties different from both parental will further enrich the genetic diversity of plants.

The research was conducted in March 2010 - June 2010. The tools used in this study include: stationery, digital cameras, label paper, ruler. While the materials used a hybrid mango leaves 2-year-old made up 44 plants from crosses of mango varieties Arumanis 143 x Podang Urang, and two parent trees of each variety were crossed. Observations were made by 2 methods, non-destructive method : Color of the leaf, leaf bone color, leaf length, leaf width, leaf length ratio, and long leaf development, while the destructive methods the observed is The leaf total, leaf area, leaf attitude in relation to branch and leaf shape. Data analysis was performed by descriptive statistics, followed by using the SPSS with sub program is hierarchical clusters and the results are presented in the form of dendrogram.

From the observation of qualitative and quantitative methods, followed by the cluster method to the leaves of mango obtained 2 cluster. Cluster 1 is a clone that has a close kinship with the two parental clones 53.1 AP, AP 48, AP 35, AP 67.2, 32.2 AP, AP 17, AP 53.2, 45.5 AP, AP 5, AP 72.2, AP 66.1, 39.2 AP, AP 49.1, AP 22.2, 59.1 AP, AP 13, AP 52.1, AP 66.3, AP 22.1, AP 12.2, AP 67.1, AP 15.1, AP 23.2, AP 52.3, AP 24.1, 45.3 AP, AP 16, AP 27.2, AP 12.1, 47.2 AP, AP 6 and AP 52.2. While cluster 2 is the expectation clone result crosses from Arumanis 143 with Podang Urang is AP 39.1, AP 29.1, AP 32.1, 54.2 AP, AP 1.27, AP 2.29, AP 53.4, AP 53.3, AP 72.1 AP 47.1, AP 49.3 and 49.2 AP. Coefficient values diversity of mango leaf from result crosses Arumanis 143 with Podang Urang is low (0-25%) in the observation of the number of leaf (21.48%), leaf length (24.03%), leaf width (14.31%), the ratio leaf length (23.11%) and duration of leaf growth (6.05%), while the observations of leaf area coefficient values diversity classified as moderate (25.01 to 50%), with the value of 33.89%.

