

A STUDY ON HYBRIDIZATION OF SIX SUPERIOR MULBERRY SPECIES IN PURWOBINANGUN P3BPTH TRIAL GARDEN

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ABSTRACT

The existence of mulberry trees is the key for silkworm because it is the only one species that used as feeding of silkworm production. The bigger size of leaf, will give bigger contribution in feeding quantity for silkworm, while the feeding quality is depend on the value of nutrition contain in leaf.

A study on hybridization of six superior mulberry species in Purwobinangun trial garden was done using five local mulberry (*M. cathayana*, *M. multicaulis*, *M. australis*, *M. alba*, and *M. nigra*) as female parents, while hybrid *M. atropurpurea* (*Sha 02 x Lun 109*) that introduced from China was used as male parent. The excess of this mulberry is on its big size of leaf, but it is difficult to cultivate by stem cutting. The expectation of this hybridization is obtained filial that have leaf with big size and can be cultivated by stem cutting easier. The objectives of this examination are determining : (1) flowering and blooming date of stem cutting six mulberry species; (2) date of fruit ripening of mulberry crossing combination; (3) the presentation of crossing successful, and average of seed number per fruit.

The result showed that *M. australis* have the fastest date of started to flower and bloom, they are after 13 days and 15 days, while the latest date is belonged to *M. atropurpurea* (*Sha 02 x Lun 109*), they are after 18 days and 23 days. The longest period of blooming in female flower is belonged to *M. alba*, 8 days, and the shortest is *M. cathayana*, 4 days, while the biggest presentation of stem flowering is belonged to *M. multicaulis*, 80%, and the smallest is *M. australis*, 36%. The fastest average of fruit ripening is *M. alba*, 30 days, and the longest is *M. multicaulis*, 43 days. *M. cathayana* has the biggest presentation of fruit establishment, 50%, while *M. nigra* has the smallest one, 11,11%. The biggest weight and total seed is belonged to *M. multicaulis*, while *M. australis* has the smallest one.

Key word : Hybridization, mulberry
