

Floral biology of guava (*Psidium guajava* L.) in Maracaibo Plateau, Zulia, Venezuela.

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Abstract

In order to obtain information about the reproductive biology of the specie *Psidium guajava* L. under the conditions of the Maracaibo Plateau, the following aspects were examined: floral characteristics, floral bud development, anthesis, anther dehiscence and studies on the pollen grains. It was determined that floral buds, exposed to biparous cymes inflorescence, take 27 days for complete development after visible initiation. The anthesis commenced at 4:30 a.m. and continued up to 8:30 a.m. with a peak between 6:30 a.m. and 7:00 a.m. The anther dehiscence starts prior to the opening of the flowers. Pollen grains showed four shapes: square, round, oval and triangular with smooth ends, this last was the most profuse, its mean size was 14,89 μ , 18,53 μ and 19,31 μ in aniline-oil, gentian-violet, glicerine and acetocarmine respectively. Pollen viability at the time of anthesis was 97%. The maximum artificial germination of pollen grains was observed in 10% saccharose solution.

Key words: *Psidium guajava* L., floral biology, anthesis, floral bud development, dehiscence of anthers, pollen grains.

Recibido el 22-1-2001 • Aceptado el 8-6-2001

1. Proyecto cofinanciado por CONDES-LUZ número 01736-98. Centro Frutícola-Corpo Zulia.

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