

## عنوان مقاله:

Impact of Gibberellic Acid and Organic Growth Media on Seed Germination and Seedling Development of Rubber  
(*Hevea brasiliensis*)

## محل انتشار:

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## نویسندگان:

Ganih Indin Sappalani - *Tawi-Tawi Regional Agricultural College, Bongao, Tawi-Tawi, Philippines*

Louella M. Cabahug - *Department of Horticulture, College of Agriculture, Central Mindanao University, Musuan, Bukidnon, Philippines*

Vences C. Valleser - *Department of Horticulture, College of Agriculture, Central Mindanao University, Musuan, Bukidnon, Philippines*

## خلاصه مقاله:

One of the best interventions to hasten seed germination and seedling development is the exogenous application of phytohormone. This study evaluated the germination and seedling development of rubber seeds in response to gibberellic acid (GA3) and organic growth media under nursery condition. The experiment was arranged in a 4x3 factorial experiment in completely randomized design (CRD) with three replications. Growth media (including: top soil, TS; TS + rice hull, RH; TS + chicken dung, CD; TS + vermicast, VC) were considered as Factor A, and different concentrations of GA3 (0, 50, and 100 ppm) were comprised as the Factor B. Newly fallen seeds (with no defects) from existing 'RRIM 600' rubber tree plantation were collected and used in the experiment. Seeds were subjected to float in GA3 solutions based on corresponding treatments for 18 h prior to sowing in different organic growth media. GA3 (100 ppm) led to the earliest emergence, highest germination percentage and normal seedlings with least mortality. The TS+VC was the best growth media influencing germination. The TS+VC media regardless of the concentration of GA3 caused 100% normal seedlings. Likewise, the combination of TS+CD as growth media and 100 ppm of GA3 also produced promising percentage of normal seedlings of rubber with 97.33%. Seedling mortality was lessen using the combination of TS+VC as growth media and 100 ppm GA3. Generally, application of 100 ppm GA3 and top soil mixed with vermicast as growth media provoked better seed germination and early seedling development .in rubber

## کلمات کلیدی:

Giberrellin, natural rubber, Phytohormone, Seedling propagation, Substrate composition

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