# Effect of Hydro and Chemical Priming on Seed Germination and Seedling Growth of Rubber (*Hevea brasiliensis*)

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Rubber (*Hevea brasiliensis*) is propagated through grafting buds of selected clones onto vigorous seedling rootstocks using a green budding technique. Both rootstock and budwood should be of high quality for producing high quality budded rubber plants. Seeds are used in raising rootstock plants of rubber. Being recalcitrant, rubber seeds deteriorate within a few days after falling from trees. The use of old seeds has resulted in low germination and extended germination period in commercial rubber nurseries. The main objective of this study was to investigate the effects of hydro- and chemical-priming on seed germination and seedling growth of *Hevea*. The experiment was conducted in a nursery at the Rubber Research Institute of Sri Lanka, Dartonfield, Agalawatta. Seeds were soaked in solutions of $ZnSO_4$ (1% & 2%) Urea (0.05%, 0.10%, & 0.15%) and in water (mock treatment) for 24 hours followed by sown in a germination bed according to a randomized complete block design. Un-primed seeds were used as control. Germination percentage was recorded at 7, 9, 11, 13, and 17 days after sowing. Growth parameters of seedlings were recorded at monthly intervals for up to three months after transplanting in polybags. Significantly higher germination percentages were recorded in seeds primed with water (hydro priming), urea, and $ZnSO_4$ after 17 days of sowing when compared to control. However, the highest germination percentage was recorded from the seeds primed with water (mock treatment). No significant differences were recorded in growth parameters of seedlings raised from seeds primed with chemicals or water when compared to those derived from un-primed seeds (control). Therefore, hydro priming may be the simplest and cost-effective priming treatment to improve the germination of rubber seeds.

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