



## RESEARCH PAPER

# Influence of seed fortification treatment with leaf extract on seedling production in bael tree (*Aegle marmelos* L.)

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**Abstract :** In cultivation of medicinal trees, seed germination is a very important problem. Various seed enhancements are being adopted nowadays to improve seedling emergence. Among these seed enhancement, seed fortification is an efficient method for increasing of seed vigour and improvement of germination and seedling growth. The laboratory experiment was conducted at the Department of Seed Science and Technology, Tamil Nadu Agricultural University, Coimbatore. The present study was conducted for evaluation of ecofriendly seed treatment with three botanical fresh leaf extracts in two concentrations with the soaking durations of 3 and 6h in Bael (*Aegle marmelos*). The results revealed that soaking of seeds in one per cent moringa (*Moringa oleifera*) leaf extract for 6h adopting 1:1 seed to solution ratio enhanced the seedling quality characters of bael in germination room and it was followed by 0.5 per cent tamarind (*Tamarindus indica*) leaf extract. On evaluation of these treatments at polypot nursery upto three months also exposed the efficacy of these treatments in production elite seedlings.

**Key Words :** Seed germination, Seed vigour, Ecofriendly, *Moringa oleifera*

**View Point Article :** Venudevan, B., Srimathi, P., Natarajan, N. and Vijayakumar, R.R. (2016). Influence of seed fortification treatment with leaf extract on seedling production in bael tree (*Aegle marmelos* L.). *Internat. J. agric. Sci.*, 12 (2) : 210-214, DOI:10.15740/HAS/IJAS/12.2/210-214.

**Article History :** Received : 01.02.2016; Revised : 12.02.2016; Accepted : 15.04.2016

## INTRODUCTION

Organic nutrients are the other alternatives to growth regulators and inorganic nutrients as they are cost effective and the lethality rate will be lesser at supra optimal conditions. Beneficial influence of botanicals in seed invigouration was reported by several authors (Suma, 2003; Albert *et al.*, 2006; Jagathambal, 1996 and Krishnasamy *et al.*, 2005) who claimed its influence in enhancing the productivity of crops.

The foundation for revitalization of local health traditions (FRLHT), Bangalore, India listed bael (*Aegle*

*marmelos*) as RET (Rare, Endangered and Threatened) species specifically endangered species. Hence, more importance is being given for mass multiplication through afforestation. The tree is normally propagated through seeds (Nayak and Sen, 1999) and seed requires specific quality characters for its better performance. It is mainly raised as seedling and transplanted to the main field. Bael is utilized in cosmetic and pharmaceutical industry to treat neural, broncheal, gastro intestinal, cardiac and uro disorders. Bael fruit juice is also popularized as health drink in aurvedic medicines. The crop is propagated through seeds and asexually through grafting where

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