

meet such deficiencies. Finger millet [*eleusinecoracona* (L.) Gaertn.], a crop with inherently higher calcium content in its grain, is an excellent candidate for understanding genetic mechanisms associated with calcium accumulation in grain crops. From the health perspective, at this point, we almost completely lack the understanding of interplay among grain calcium, other micronutrients and antinutrients metabolism in human body. Any potential risks of reducing the antinutrient content in the grains should be evaluated with a view of their long-term effects on human health. Therefore, the focus should be on demonstrating finger millet by soaking in different type sample for particular hours to reduce or neutralizing the antinutrient content of phytic acid.

COMPARATIVE STUDY OF IN-VITRO AND EX-VIVO ANTIOXIDANT AND ANTIBACTERIAL ACTIVITIES OF A BIOACTIVE COMPOUND ISOLATED FROM ALOE VERA PLANT WERE INVESTIGATED AS A THERAPEUTIC COMPOUND ON ZEBRA FISH

Ms. Anitha¹, P. Tamizharasi², Ushnai U³

^{1,2} Assistant Professor, Department Of Biotechnology, Karpaga Vinayga College Of Engineering And Technology, Chengalpattu

³ Professor, Department Of Biotechnology, Karpaga Vinayga College Of Engineering And Technology, Chengalpattu

Aloe vera is a medicinal plant with a traditional history, complex constituents, and various pharmacological activities. It mainly grows in the dry regions of Asia, America, Africa, and Europe. In India, it is found in Maharashtra, Gujarat, Rajasthan, Tamil Nadu, and Andhra Pradesh. *Aloe vera* is also called wand of heaven, potted physician, wonder plant, plant of life, and heaven's blessing. *Aloe vera* contains vitamins A, B12, C and E, choline, folic acid, minerals, sugars, amino acids, and sterols. The pulp gel of *Aloe vera* works as antiviral, antibacterial, antifungal, anti-cancer, wound healing with the medicinal principles being phenolics and polysaccharide compounds. Those qualities have prompted the importance of industrial and commercial increase in the production of *Aloe vera* throughout the world. Natural Propagation can also allow the propagation of diseases frequently present in the mother plants. In this study, with the objective of the production of not only healthy, but also standardized sizes of plantlets to be used in the subsequent controlled stages of the process, a complete micropropagation system involving disinfection, in vitro multiplication followed by ex vitro acclimatization procedures used to attain the production of mass propagation of *Aloe vera* plants. The in vitro and naturally propagated *Aloe vera* been analysed for various phytochemicals and Antioxidants and proceeded with the In vivo study using Zebra fish as model to prove the efficiency of production of secondary metabolites through Micropropagation for therapeutics.

Keywords: *Aloe vera*, Micropropagation, Secondary metabolites, In vitro, Ex vivo, Zebra fish model.

REPARATION OF PROBIOTIC DRINK USING INDIAN PLUM AND A COMPARATIVE STUDY ON NATURAL SUGARS

Angelsona M

Department Of Biotechnology, Karpaga Vinayga College Of Engineering And Technology, Chengalpattu