

Dr. S. M. Dabhi

New Trends in Life Sciences

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Price Rs 275.00

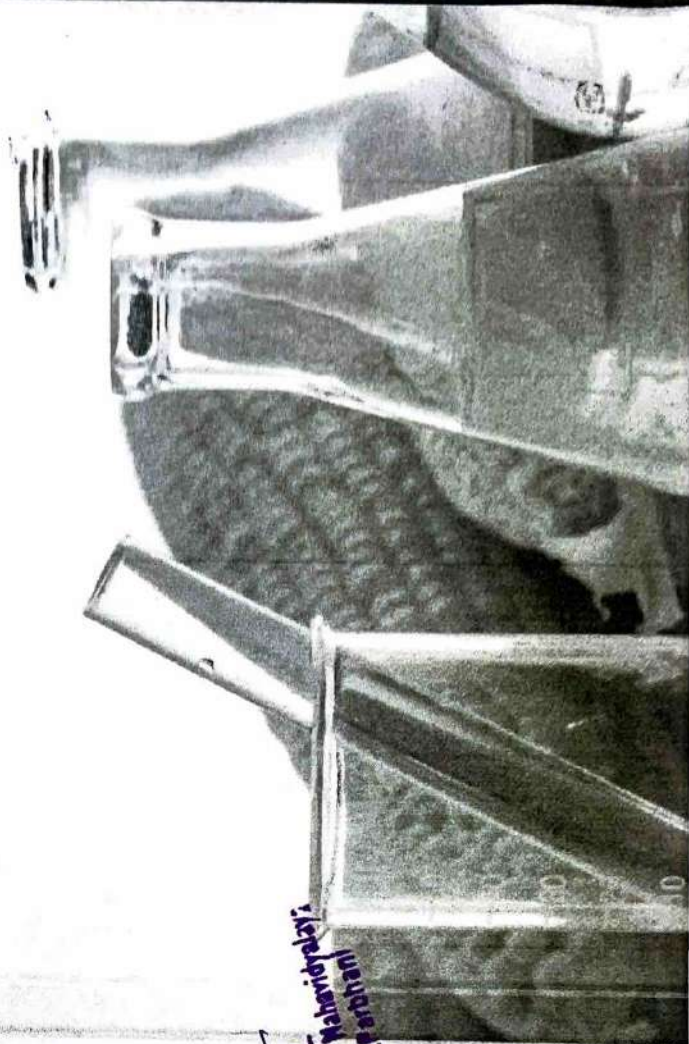
ISBN 978-1-63832-914-8



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Book Details

26 Feb 21

Publishing date

Active

Listing Status

9781638329138

ISBN

Paperback

Binding Type

English

Language

5.5/8.5

Book Size

112

Page Count

Reference &
Study Guides

Genre

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ISBN 978-1-63832-913-8

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9. J.H. Oh, C.R. Jung, M.O. Lee, J.Kim, and M.Y. Son, "Comparative analysis of human embryonic stem cell-derived neural stem cells as an in vitro human model," International Journal of Molecular Medicine, vol.41, no.2, pp. 783-790, 2018.
10. J.Chen, B. Tshudy-Seney, X.Ma, M.A. Zern, P.Liu, and Y.Duan, "Salvianolic acid B enhances hepatic differentiation of human embryonic stem cells through upregulation of WNT pathway and inhibition of Notch pathway," Stem cells and Development, vol.27, no.4, pp. 252-261, 2018.



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CHAPTER IX

New Trends in Application of Phosphate Solubilizing Bacteria (PSB) For Growth Promotion of Crops

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Introduction:Phosphorus (P) is the second most essential macronutrient, for growth and development of plants as it is involved in important metabolic pathways like photosynthesis, respiration, biological oxidation, nutrient uptake, cell division and cell building(Gupta et al., 2012; Pathak et al., 2017). Soils contain high levels of P, but, a greater part of soil Phosphorus, approximately 95-99%, is present in the form of insoluble phosphates and hence cannot be utilized by the plants (Kannapiram and Sri Ramkumar, 2011; Muhammad and Maran, 2012). Unlike the case of Nitrogen there is no large atmospheric source of Phosphorus that can be made Biologically available to plants (Karpagam and Nagalaxmi 2014). Conventional farming system relies on heavy application of chemical phosphorus fertilizers to maintain optimum level of phosphorus in agricultural soils (Ahmed and Kiber, 2014). However, major portions (around 75% in some soils) of the soluble phosphorus are rapidly immobilized in soil which makes it unavailable for plants (Richardson and Simpson, 2011).Also, the repeated use of chemical fertilizers deteriorates soil quality