

Contents

*Research Articles*

- Evaluation of pulsed electromagnetic stimulation for the enhancement of femoral fracture healing in dogs  
*R. Uma Rani and N. Rajendran* 108
- Protein marker as an easy tool to detect *Secale cereal* - derived linked genes *Sr31, Lr26, Yr9* and *Pm8* in wheat  
*R. Nisha, M. Sivasamy, K. Gajalakshmi, V.K. Vikas, Jagdish Kumar, P. Jayaprakash, P. Shajitha and N. Senthil* 115
- Hydrogen bonding interactions, semi-empirical quantum chemical calculations and the antibacterial activity in a zwitter-ion derive: 2-[(2-hydroxyphenyl) - iminomethyl] phenyl  
*Mukesh M. Jotani and Minesh D. Patel* 122
- A new algorithm for classification: Case study in tobacco  
*K. Swapnadevi and M.M. Naidu* 129
- Cyclization of aryl enones by  $\text{SiO}_2\text{-H}_3\text{PO}_4$  catalyst under microwave irradiation: Solvent-free synthesis of some oxazine-2-amine derivatives  
*G. Thirunarayanan* 135
- Effect of newly developed zinc chelates on productivity and quality of rice  
*P. Stalin, D. Gayathri, D. Muthumanickam and T. Chitdeshwari* 143
- Antagonism of marine *Actinomyces* bacteria against virulence and bio-luminescence disease causing *Vibrio harveyi*  
*K. Sivakumar, S. Kannappan and M. Dineshkumar* 151
- Heterosis and combining ability for fruit yield and its component traits in pumpkin (*Cucurbita moschata* Duch. ex Poir.)  
*S.K. Nisha and D. Veeraragavathatham* 158
- Productivity, efficiency and stability of different cropping systems in North - West India  
*S.S. Walia, S.S. Dhaliwal, A.S. Brar, Satpal Singh, Roopinder Singh, C.S. Aulakh and Navdeep Kaur* 163

Thermostable alkaline $\beta$ - lactamase isolation and purification from thermophilic bacterial strain <i>Geobacillus stearothermophilus</i> "AAP7919" <i>Arun Kumar, Jayata Chopra and Priyanka Devi</i>	169
Remediation of textile waste water using MFC technology by adding <i>Enterobacter cloacae</i> <i>Sam A. Masih and Mercy Devasahayam</i>	178
Quinalphos induced changes in plasma proteins, lipid and cholesterol in female albino rats <i>Jaspreet Kaur and K.S. Khera</i>	186
Evaluation of poultry whole carcass meal as an animal protein source in fattening crossbred pig rations <i>J. Ramesh, A. Gopinathan and M.P. Vijayakumar</i>	190
Optimization of dyeing conditions for Reactive Red 2 on mulberry silk waste / wool blended fabric <i>Pooja Bhatt and Sandeep Bains</i>	194
Magnitude and impact of different botanical and synthetic chemical treatments on the yield attributes of Mustard infested by Aphid ( <i>Lipaphis erysimi</i> Kalt.) <i>Kuldeep Singh and N.N. Singh</i>	198
Author Index	i
Guidelines for Authors	ii - iii
Acknowledgment	