



CONTENTS

PART - I: REVIEW ARTICLE

- Approaches for ending the era of farmer's suicides 137
 - N. M. KALE, RAVIPRAKASH G. DANI AND D. M. MANKAR

PART - II: RESEARCH PAPERS

Crop Sciences

- Evaluation of maize inbred lines for drought tolerance under contrasting soil moisture regimes 142
 - T. V. SHADAKSHARI AND G. SHANTHAKUMAR
- Studies on changes in soil fertility, maize equivalent yield and nutrient recycling in different maize (*Zea mays* L.) based intercropping systems 147
 - G. K. GIRIJESH, A. S. KUMARA SWAMY AND S. P. NATARAJU
- Chemical weed management in sesame (*Sesamum indicum* L.) 151
 - T. MRUTHUL, A. S. HALEPYATI AND B. M. CHITTAPUR
- Efficacy of sequential application of pre and post-emergent herbicides in *kharif* green gram (*Vigna radiata* L.) 155
 - G. K. SHRUTHI AND S. R. SALAKINKOP
- Effect of planting geometry and nutrients levels on yield, yield attributes and economics of pigeonpea genotypes 160
 - H. P. BHARATH KUMAR, B. G. KOPPALKAR, M. A. BASAVANNEPPA, N. ANANDA AND K. NARAYANARAO
- Integrated weed management in rainfed chilli (*Capsicum annum* L.) 164
 - B. N. GARE, P. U. RAUNDAL AND A. V. BURLI
- Effect of temperature regimes on phenological parameters, yield and yield components of chickpea 168
 - B. A. KIRAN AND V. P. CHIMMAD
- Influence of integrated nutrient management on yield and uptake of nutrients by maize and soil fertility under irrigated conditions in Vertisol 172
 - S. S. GUNDLUR, P. L. PATIL, S. RAJKUMARA, P. ASHOKA AND J. K. NEELAKANTHA
- Fertility status of soils in tank command areas of North Karnataka 176
 - G. S. DASOG, B. M. RADDER AND H. M. SANNAGOUDRA
- Studies on the transformations of carbon under different nutrient management practices and cropping systems in Vertisol of Northern Transition Zone of Karnataka 182
 - JAHNAVI R. KATTI AND K. K. MATH

Effect of compost enriched with NPK fertilizers and neem oil coated urea on productivity and nutrient use efficiency in maize	185
- V. V. SANJAYKUMAR, T. S. VAGEESH, G. J. ABHIRAM AND Y. P. SHILPASHREE	
Effect of long-term application of bio-methanated spentwash on sugarcane in Vertisol	189
- SHIVARAJKUMAR M. KAMBLE AND MANJUNATHA HEBBARA	
Bio-efficacy of insecticides, botanicals and biopesticide against the leaf eating caterpillar, <i>Noorda blitealis</i> Walker on drumstick	193
- M. S. BRUNDA KUMARI, Y. K. KOTIKAL, GANGADHAR B. NARABENCHI AND A. M. NADAF	
Evaluation of different insecticides against <i>Agrotis segetum</i> (Denis and Schiffermuller) and <i>Spoladea (=Hymenia) recurvalis</i> (Fabricius) on amaranthus	197
- K. N. MANJULA AND Y. K. KOTIKAL	
Effect of different insecticides molecules as poison bait against <i>Spodoptera litura</i> (Fab.) in groundnut	202
- K. R. SHANKARAGOUDA, SOMESEKHAR, A. PRABHURAJ AND A. C. HOSAMANI	
Insecticidal activity of the isolated and characterized native <i>Bacillus thuringiensis</i> (Berliner) against <i>Plutella xylostella</i> (Linnaeus)	206
- D. T. PRAVEEN, BASAVARAJ S. KALMATH, A. PRABHURAJ, A. NAGANAGOUD AND G. P. SANTOSH	
Isolation and characterization of cellulolytic yeasts for bioethanol production	211
- SARAT CHANDRA SAHOO AND GEETA G. SHIRNALLI	
Morphological and cultural variability in isolates of <i>Alternaria</i> spp. causing leaf blight of cotton	214
- K. D. SANGEETHA AND S. A. ASHTAPUTRE	
Effect of fungicides on the management of die-back and fruit rot of chilli (<i>Capsicum annuum</i> L.)	220
- SANTOSHREDDY MACHENAHALLI AND V. B. NARGUND	
Incidence of <i>Aspergillus flavus</i> L. Ex. Fries in groundnut (<i>Arachis hypogaea</i> L.) samples and its impact on nutritive value of kernels	224
- S. S. ADIVER AND M. G. KIRAN KUMAR	
Onion price forecasting in Hubli market of Northern Karnataka using ARIMA technique	228
- VINAYAK N. JALIKATTI AND B. L. PATIL	
Perception and constraints in adoption of soil and water conservation practices among the Sujala Watershed Project beneficiaries	232
- P. K. MITHUN AND A. BHEEMAPPA	
Forestry	
Standardization of nursery techniques in <i>Simarouba glauca</i> , bio-diesel species	235
- R. L. CHAVAN AND B. V. TEMBHURNE	

Agril. Engineering

Assessment of groundwater quality under semi-arid micro-watershed condition 239

- R. S. SAVITA, U. SATISHKUMAR, M. S. AYYANGOWDAR, M. NEMICHANDRAPPA AND H. VEERESH

Hort. Sciences

Integrated nutrient management for quality production of cauliflower in acid alfisol of Nagaland 244

- TEKASANGLA, S. P. KANAUIA AND P. K. SINGH

Home Science

Ergonomic assessment of women respondents performing dairy activities 248

- DEEPA NAIK AND P. R. SUMANGALA

Resiliency in children in their late childhood 252

- K. M. SANGMA AND P. B. KHADI

Influence of locality, age and gender on personality traits of urban and rural adolescents 256

- LEEMARAJKUMARI AND SARASWATI C. HUNSHAL

Impact of Gram Panchayat schemes on women beneficiaries 260

- SUMAN M. PUJAR AND UMA S. HIREMATH

PART - III: RESEARCH NOTES

Crop Sciences

Effect of biofertilizers and foliar application of organic acids on growth and yield of soybean [*Glycine max* (L.) Merrill] 264

- N. N. LINGARAJU AND C. S. HUNSHAL

Yield, nutrient uptake and economics of pigeonpea (*Cajanus cajan* L. Millsp.) as influenced by soil application of micronutrients and foliar spray of macronutrients 266

- K. MUKUND GOWDA, A. S. HALEPYATI, B. G. KOPPALKAR AND SATYANARAYANARAO

Effect of pre-sowing treatments on seed germination of *Melia azedarach* L. 269

- V. N. SUJATHA AND K. MANJAPPA

Bio-efficacy of eco-friendly insecticides against pests of Indian bean, *Lablab purpureus* L. 271

- A. J. CHAUDHARI, D. M. KORAT AND M. R. DABHI

Seasonal abundance of major sucking insect pests of pigeonpea and their natural enemies in Northern dry zone of Karnataka 274

- G. H. LINGARAJU AND A. P. BIRADAR

Crop loss estimation due to *Agrotis segetum* (Denis and Schiffermuller) and *Spoladea* (=Hymenia) *recurvalis* (Fabricius) on palak 277

- K. N. MANJULA AND Y. K. KOTIKAL

Studies on insect fauna, their natural enemies and pollinators in fenugreek	279
- K. N. MANJULA, Y. K. KOTIKAL, H. B. PATIL AND I. B. BIRADAR	
Population build up of paddy yellow stem borer (<i>Scirpophaga incertulus</i> Walker) in relation to different weather parameters	282
- H. SOMASHEKARA AND JAVAREGOWDA	
Efficacy of insecticides against shoot and fruit borer, <i>Leucinodes orbonalis</i> (Guen.) in brinjal	284
- ANIL AMRESH SAJJAN AND C. M. RAFEE	
<i>In vitro</i> screening for biocontrol activity of pink pigmented facultative methylotrophs against phytopathogens ...	286
- P. SAVITHA, M. N. SREENIVASA AND JONES P. NIRMALNATH	
Survey for the assessment of severity of soybean rust and identification of hot spots in different ecosystems of Northern Karnataka	288
- H. SHARADA AND SHAMARAO JAHAGIRDAR	
Effect of date of sowing on powdery mildew severity and yield of sunflower	290
- A. BHEEMARAYA AND M. M. JAMADAR	
A comparative study of traditional and modern retail outlets - a discriminant function approach	292
- HARSHA V. TORGAL, S. B. HOSAMANI AND K. V. ASHALATHA	
Management efficiency of dairy farm women	295
- S. SOWJANYA AND S. V. HALAKATTI	
Forestry	
Influence of spacing and fertilizer levels on biomass production of <i>Salacia chinensis</i> Linn.	298
- J. SOMASHEKAR AND K. S. CHANNABASAPPA	
Agril. Engineering	
Optimization of extrusion process parameters for the development of foxtail millet based extruded snacks	301
- SWAPNIL KHARAT, SHARANAGOUDA HIREGOUDAR, R. V. BELADHADI, ARUNKUMAR HOSAMANI, C.T. RAMACHANDRA AND UDAYKUMAR NIDONI	
Key words Index of This Issue	304
Esteemed Referees of This Issue	306
Instruction to Authors	308