



ISSN 0972 - 1665

Journal of Agrometeorology

Volume 22

Number 4

December 2020

Association of Agrometeorologists
Anand - 388 110, India



Journal of Agrometeorology

CONTENTS

Editorial

Micrometeorological measurements in agricultural research - M. K. Nanda 395

Research Paper

CAI CHENG-ZHI, CAO WEN-FANG, ZENG XIAO-SHAN, ZUO JIN, XIAO DAN, LIAO CONG-JIAN and KANWAL WAQAR - Yield potential of world wheat based on ARIMA model under global warming 397

SHWETA PANJWANI, S. NARESH KUMAR and LAXMI AHUJA - Simulation performance of selected global and regional climate models for temperature and rainfall in some locations in India 407

MUNISH KAUNDAL and RAKESH KUMAR - Effect of elevated CO₂ and elevated temperature on growth and biomass accumulation in *Valeriana jatamansi* Jones. under different nutrient status in the western Himalaya 419

R. GOWTHAM, V. GEETHALAKSHMI, N. KUMAR, A. LAKSHMANAN, K. BHUVANESWARI, GA. DHEEBAKARAN and K. SENTHILRAJA - Drought analysis and management for Tamil Nadu: Science-stakeholder-policy linkage 429

MANORANJAN KUMAR, K.S. REDDY and K. SAMMI REDDY - Regional scale cropping systems management options in Telangana using WorldClim data 439

RANI SAXENA, ATUL TIWARI, PRASOON MATHUR and N.V.K. CHAKRAVARTY - An investigation of reference evapotranspiration trends for crop water requirement estimation in Rajasthan 449

NAVDEEP KAUR, PARDEEP K. CHHUNEJA, JASPAL SINGH, AMIT CHOUDHARY and S. K. DHILLON - Effect of weather factors and nitrogen application on nectar secretion and honey production potential in sunflower 457

NAVJOT GUPTA, RAJ KUMAR PAL, AMARDEEP KOUR and S. K. MISHRA - Thermal unit requirement of grape (*Vitis vinifera* L.) varieties under south western Punjab conditions 469

S. SHERAZ MAHDI, B. S. DHEKALE, SUBORNA ROY CHOUDHURY, MIZANULHAQUE and SANJEEV KUMAR GUPTA - Magnitude, frequency, trends of heat and cold waves in recent decades and impact assessment in wheat: the case of north Bihar, India 477

J.K. BANA, JAIPAL S. CHOUDHARY, P.D. GHOGHARI, HEMANT SHARMA, SUSHIL KUMAR and SAGAR J. PATIL - Influence of weather parameters on powdery mildew of mango inflorescence in humid tropics of South Gujarat 488

S.J. KADBHANE and V.L. MANEKAR - Development of agro-climatic grape yield model for Nashik region, Maharashtra, India 494

J.S. BRAR, K.S. GILL, KIRANDEEP KAUR and GAGANDEEP KAUR - Soil temperature and horticultural traits as influenced by mulching materials and orchard floor management practices in ber (*Zizypus mauritiana* Lamk.) 501

ADIKANT PRADHAN, T. CHANDRAKAR, S.K. NAG, A. DIXIT and S.C. MUKHERJEE - Crop planning based on rainfall variability for Bastar region of Chhattisgarh, India 509

Short Communication

- S. MOHAPATRA, S.K. TRIPATHY and S. TRIPATHY - Seedling vigour enhancement through nursery bed protection and mulching for yield enhancement in *rabi* rice 518
- SARATHI SAHA, SAON BANERJEE and ASIS MUKHERJEE - Assessing the effect of weather parameters on wheat yield of Nadia district of West Bengal 524
- J.S. MINIMOL, B. SUMA, T.K. SHIJA and K.S. SHILPA - Genotypic and seasonal variations affecting yield attributes of cocoa (*Theobroma cacao* L.) varieties 528
- V.G. CHAVAN, V.A. RAJEMAHADIK, V.G. MORE, S.A. CHAVAN and U.V. MAHADKAR - Weather based prediction model for time of occurrence of vegetative flush in mango *cv.* Alphonso for Konkan region of Maharashtra state 532
- PRALHAD JAYBHAYE and ASIS MUKHERJEE - Impact of water saving techniques on leaf water potential of broccoli under various water stress conditions 535
- M.P. BRAHMANE, S.S. PAWAR, M.P. BHENDARKAR, K.K. KRISHNANI and N.P. KURADE - Effect of temperature on body weight, metabolism and thermoregulation of air breathing catfish *Heteropneustes fossilis* 541
- MANDEEPPATHANIA, R.K. PAL, SANJEEV KUMAR, SUBASH SINGH and PARAMJIT SINGH - Seasonal incidence of whitefly (*Emissia tabaci* Gennadius) and jassid (*Amrasca bigutulla bigutulla* Ishida) on transgenic cotton in south-western Punjab, India 545