



ISSN 0972 - 1665

# *Journal of Agrometeorology*

**Volume 22**

**Number 3**

**September 2020**

**Association of Agrometeorologists  
Anand - 388 110, India**



# Journal of Agrometeorology

## CONTENTS

### Editorial

Geospatial technology and agrometeorological research 239

### Research Paper

LINGARAJ HUGGI, H.S. SHIVARAMU, M.H. MANJUNATAHA, D.V. SOUMYA, P. VIJAYA KUMAR and MANOJ M. LUNAGARIA - Agro-climatic onset of cropping season: A tool for determining optimum date of sowing in dry zones of southern Karnataka 240

REENA, AMANDEEPKAUR, MAHENDER SINGH, BHAV KUMAR SINHA, ANIL KUMAR and SHAHIDAHMAD - Impact of abiotic factors on population dynamics of *Eactrocera dorsalis* Hendel and *Eactrocera zonata* (Saunders) at different ecological zones in NW Plains of India 250

RAVI DUPDAL, RAJKUMAR DHAKAR, C.A. RAMA RAO, JOSILY SAMUEL, B.M.K RAJU, P. VIJAYA KUMAR and V.U.M. RAO - Farmers' perception and economic impact assessment of agromet advisory services in rainfed regions of Karnataka and Andhra Pradesh 258

KOTRESH PRASAD CHIKKAGOUDARA, PAWAN SINGH, DEEPANDITA BARMAN, CAROLINA POTSHANGBAM, NINAD BHATT, SOHAN VIR SINGH, SURENDER SINGH LATHWAL - Eye temperature, an indicator for stress levels in young buffalo bulls – A case study of micro-environment modification 266

RAWEE CHIARAWIPA, KANJANA THONGNA and SAYAN SDOODEE - Assessing impact of weather variability and changing climate on oil-palm yield in major growing regions of southern Thailand 274

KOUSHIK BAG, K.K. BANDYOPADHYAY, V.K. SEHGAL, A. SARANGI<sup>1</sup> and P. KRISHNAN - Effect of tillage, residue and nitrogen management on radiation interception, radiation use efficiency and evapotranspiration partitioning 285

GAURAV SINGH, MAHA SINGH JAGLAN, TARUN VERMA, and SHIVANI KHOKHAR - Influence of prevailing weather parameters on population dynamics of spotted stem borer, *Chilo partellus* (Swinhoe) and its natural enemies on maize in Haryana 295

GURTEG SINGH, HARINDER SINGH RATTANPAL, MONIKA GUPTA and GURUPKAR SINGH SIDHU - Standardization of stage wise water requirement in drip irrigated Kinnow mandarin orchards under sub-tropical conditions 305

S. RAI, T.K. DUTTA, R. BEHERA, D.K. MANDAL, A. CHATTERJEE, M.K. GHOSH and M. KARUNAKARAN - THI and health estimates of Jersey crossbred calves reared in different housing system in the lower Gangetic plains of West Bengal 313

B. KIRAN GANDHI, S.K. SINGH, KRISHNA KUMAR, S. VENNILA, Y. SRUJANA, ARTIKATTIYAR and N.P. SINGH - Forecasting *Helicoverpa armigera* (Lepidoptera: Noctuidae) larval phenology in pigeonpea and chickpea crops using growing degree days 320

JOYDEEPMUKHERJEE, BRIJESH YADAV, V.K. SEHGAL, D.K. DAS, PRAMEELA KRISHNAN and RAJ KUMAR DHAKAR - Radiation dimming induced modifications in radiation utilization of wheat ( <i>Triticumaestivum</i> ) crop	332
S.K. JALOTA, PRABHJYOT KAUR, JATINDER KAUR, P.K. KINGRA and B.B. VASHISHT - Critical analysis of temporal climate change and ensuing frequency of crop yield constraining temperatures	339
NAVEEN P. SINGH, BHAWNA ANAND, K.V. RAO and RANJITH P.C. - Spatial and temporal assessment of climate impact on agriculture in plateau region, India	353
<b>Short Communication</b>	
K. BASAVARAJ, A.S. RATHI, N.P. GURAV, ANIL KUMAR, SANTHOSHA RATHOD and RAM NIWAS - Influence of weather variables on progression of white rust disease of Indian mustard	362
M. SUDHA, SANTOSHREDDY MACHENAHALLI, MADHU S. GIRI, A.P. RANJINI and S. DAIVASIKAMANI - Influence of abiotic factors on coffee leaf rust disease caused by the fungus <i>Hemileia vastatrix</i> Berk. & Br. under changing climate	367
C.S. KARTHIK, D.K. GHOSH (LKN), SAON BANERJEE, APURBA BANDYOPADHYAY and P. DINESH KUMAR - Black pepper ( <i>Piper nigrum</i> L.) yield estimates using crop weather model	372
ADITA MISHRA, B. MEHRA, SHRADDHA RAWAT, S. GAUTAM, EKTA P. MISHRA and GULAB SINGH - Utility of gridded data for yield prediction of wheat using DSSAT model	377
B.A. LONE, A. FAYAZ, S. QAYOOM, R.H. KANTH, Z.A. DAR, P. SINGH, S. KUMAR, NAJMAH ANDRABI and NIGHAT MUSHTAQ - Simulating maize yield at enhanced level of temperature using CERES maize model	381
ANITA KUMAWAT, A.K. SINGH, R.K. SINGH, S.KALA and I.RASHMI - Dew trend analysis and its potential implications in rainfed agriculture	385
S.G. MAHADEVAPPA, G. SREENIVAS, D. RAJI REDDY, A. MADHAVI and S.S. RAO - Application of CROPGRO-Cotton model to optimize irrigation scheduling in Bt cotton on alfisols of Southern Telangana	390