## Research Article

| S.No. | Title                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Page No. |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| 1.    | VBN 11 - A new high yielding and MYMV disease resistant blackgram variety                                                                                                                                                                                                                                                                                                                                 | 987-992  |
|       | S. Geetha, R.P. Gnanamalar, N. Manivannan, A. Mahalingam, S. Lakshminarayanan, K. Bharathikumar, P. Ramakrishnan, M. Sudha, S. Marimuthu, V. K. Sathya, P. Ahila devi, C. Vijayaraghavan, V. R. Saminathan and V. Ambethgar                                                                                                                                   |          |
| 2.    | Cotton CO17 - A short duration, high yielding compact variety suitable for high density planting system                                                                                                                                                                                                                                                                                                  | 993-1000 |
|       | M. Gunasekaran, N. Premalatha, M. Kumar, L. Mahalingam, N. Sakthivel, K. Senguttuvan, P. Latha, N. Meenakshiganesan, S. Rajeswari and S. Geetha                                                                                                                                                                                                  |          |
| 3.    | A new high yielding, charcoal rot and yellow mosaic virus disease resistant soybean variety AMS-1001 (PDKV Yellow Gold)                                                                                                                                                                                                                                                        | 1001-1006|
|       | S. S. Nichal, P. V. Patil, G. D. Chandankar, M. S. Dandge, Y.V. Ingle, S. S. Munje and H. H. Dikey                                                                                                                                                                                                                                               |          |
| 4.    | Assessment of variation in volatile oil content in cardamom [Elettaria cardamomum (L.) Maton]                                                                                                                                                                                                                                                                                          | 1007-1014|
|       | K. Ashokkumar, M. K. Dhanya, M. Murugan, K. V. Haritha, M. Nimisha and S. Aiswarya                                                                                                                                                                                                                                              |          |
| 5.    | Estimation of combining ability of yield and different agronomic traits in interspecific cotton hybrids                                                                                                                                                                                                                                                               | 1015-1020|
|       | Maria Varghese and M. P. Patel                                                                                                                                                                                                                                                                                                                                                   |          |
| 6.    | Study the specificity in adaptability of rice (Oryza sativa L.) genotypes to specific environment                                                                                                                                                                                                                                                        | 1021-1025|
|       | M. R. Chavan, B. D. Waghmode and S. G. Bhave                                                                                                                                                                                                                                                                                                                      |          |
| 7.    | Combining ability and gene action analysis in sunflower (Helianthus annuus L.)                                                                                                                                                                                                                                                                                               | 1026-1031|
|       | P. H. Karande, M. K. Ghodake, A. M. Misal and P. L. Tavadare                                                                                                                                                                                                                                                                                               |          |
| 8.    | Selection for drought tolerance in rice genotypes based on principal components and selection indices                                                                                                                                                                                                                          | 1032-1036|
|       | S. Pavithra and V. Vengadasan                                                                                                                                                                                                                                                                                                                                          |          |
| 9.    | Performance evaluation of oat variety Bundel Jai-15-1 for fodder and seed yield in hill zone of India.                                                                                                                                                                                                                                             | 1037-1043|
|       | S. Ahmed, K. K. Singh and A. K. Roy                                                                                                                                                                                                                                                                                                                                   |          |
| 10.   | Interrelationships among yield and its contributing traits in rice (Oryza sativa L.) under sodic soil                                                                                                                                                                                                                                           | 1044-1052|
|       | Shiv Prakash Shrivastav, O.P. Verma, Vishal Singh and Kanhaiya Lal                                                                                                                                                                                                                                                                                                   |          |
| 11.   | Correlation and path analysis study of different characters for grain yield and fodder purpose in sorghum [Sorghum bicolor (L.) Moench]                                                                                                                                                                                                 | 1053-1061|
|       | S. J. Goswami, P. T. Patel, R. A. Gami, R. N. Patel and A. B. Khatri                                                                                                                                                                                                                                                                                                      |          |
| 12.   | Comparative studies on different methods for perfect synchronization of parental lines of Sahyadri 3 rice hybrid for commercial hybrid rice seed production                                                                                                                                                                                                 | 1062-1065|
|       | B. D. Waghmode, N. G. Sonone and B. L. Thaware                                                                                                                                                                                                                                                                                                                        |          |
| 13.   | Characterization of barnyard millet (Echinocloa frumentaceae (Roxb.) Link) germplasm for quantitative traits to enhance its utilization                                                                                                                                                                                                                                  | 1066-1072|
|       | C. Nandini, Sujata Bhat, Saritha HS, Chithra Devi Pandey, Sushil Pandey, Prabhakar, Lavanya Bai and Jayaram Gowda                                                                                                                                                                                                                                               |          |
| 14.   | Genetic divergence for yield contributing characters in F5 families of rice (Oryza sativa L.)                                                                                                                                                                                                                                                                       | 1073-1077|
|       | Abinash Mishra, P. C Kole, Soumya Satpathy and Rosevellina Mohanta                                                                                                                                                                                                                                                                                                   |          |
| 15.   | Studies on combining ability for grain yield and related traits in advanced breeding lines in rice (Oryza sativa L.)                                                                                                                                                                                                                     | 1078-1084|
|       | Vartika Budhlaboti, M K Karanwal and Anjali Joshi                                                                                                                                                                                                                                                                                                                     |          |
| 16.   | Combining ability analysis for yield and fibre quality traits in intraspecific hybrids of Gossypium hirsutum L.                                                                                                                                                                                                                 | 1085-1092|
|       | N. Premalatha, M. Kumar and L. Mahalingam                                                                                                                                                                                                                                                                                                                                     |          |
| Page | Title                                                                 | Authors                                                                 | Pages   |
|------|----------------------------------------------------------------------|------------------------------------------------------------------------|---------|
| 17.  | Genetic variability, heritability and genetic advance of yield and lodging-related traits in rice (Oryza sativa L.) | B. Keerthiraj and S. Biju                                               | 1093-1098 |
| 18.  | Genetic analysis for some topcrosses of yellow maize                 | Mohammad Reda Ismail, Ali A El-Hosary and Mahmoud EL M EL-Badawy        | 1099-1105 |
| 19.  | Heterosis for yield and grain quality parameters in basmati rice (Oryza sativa L.) | Aarti Sharma and H. K. Jaiswal                                         | 1106-1115 |
| 20.  | Multivariate analysis in sunflower genotypes for yield associated traits | R. Sasikala, G. Raiza Christina, P. Sahithi Reddy, PL Viswanathan and S Manonmani | 1116-1119 |
| 21.  | Genetic analysis of backcross derived lines of Oryza rufipogon in the background of Samba Mahsuri for yield enhancing traits in rice | P. S. Basavaraj, C. Gireesh, B. Muralidhara, C. A. Manoj, M.S. Anantha, Ch. Damodar Raju | 1120-1127 |
| 22.  | Radiation sensitivity of sesame (Sesamum indicum L.) genotypes in M generation (V. mungo L. Hepper) | Lovejit Singh, Ashok Kumar, Satinder Kaur and Ranjit Kaur Gill          | 1128-1133 |
| 23.  | Multivariate analysis of yield contributory traits for selection criteria in urdbean (Solanum melongena L.) | D. Dinesh Varma, L. L. Jivani, V. L. Purohit, A. T. Vadavia and R. K. Rathod | 1134-1142 |
| 24.  | Heterosis and inbreeding depression for fruit yield and its component characters in brinjal (Cajanus cajan (L.) Millsp.) | E. Rajeswari and P. Jayamani                                           | 1143-1147 |
| 25.  | Host plant resistance in pigeonpea (Cajanus cajan (L.) Millsp.) genotypes for root rot disease caused by (Rhizoctonia bataticola (Taub.)Butler) | R. Singh Thapa, Pradeep Kumar Sharma, Anuj Kumar and Dharmendra Pratap | 1148-1152 |
| 26.  | Evaluation of blast resistance genes Pi9 and Pi54 in rice against local isolates of Tamil Nadu | Thiyagarajan Thulasinathan, Rohit Kamble, Bharathi Ayyenar, S. Manonmani and Raveendran Muthurajan | 1153-1158 |
| 27.  | Screening for heat tolerant genotypes in bread wheat (T. aestivum L.) using stress tolerance indices | Ravi Singh Thapa, Pradeep Kumar Sharma, Anuj Kumar and Dharmendra Pratap | 1159-1164 |
| 28.  | Differential gene expression studies on HsfA4d, HsfB2a and ClpD1/HSP100 during heat stress in the rice varieties N22 and Co51 | Rishima Maheendran, V. Soundarrajan, N. M. Manikanda Boopathi, R. Gnananam, V. Geethalakshmi and P. Meenakshisundaram | 1165-1171 |
| 29.  | Morphological spectrum of gamma rays and EMS induced viable mutants in cowpea (Vigna unguiculata (L.) Walp) | M. Preethi and A. Muthuswamy                                           | 1172-1180 |
| 30.  | Application of SSR marker in genetic purity analysis of CORH 4 rice hybrid and its parental lines | M. S. Nagendra, P. Selvaraju, R. Jerlin, K. Ganesamurthy and N. Senthil | 1181-1186 |
| 31.  | Mutagenic effectiveness and efficiency of gamma rays and ethyl methane sulphonate on Hibiscus rosa-sinensis L. cultivar red single | N. V. Naveena, S. Subramanian, M. Jawaharlal, K. Iyanar and C.N. Chandrasekhar | 1187-1193 |
| 32.  | Targeted mutation in eIF4G gene in rice | S. Nithya, Yaiphabi Kumam, S. Varanavasiappan, K. K. Kumar, Muthamilan and D. Sudhakar | 1194-1199 |
| 33.  | Genetic divergence of saffron germplasm for morphological and corm attributes | Mohammad Irfan, Sabeena Naseer, M. Ashraf Bhat, Uzma Rashid, Z. A Dar, Gowhar Ali, and Asif M. Iqbal Qureshi | 1200-1204 |
| 34.  | Micropropagation in Moringa oleifera Lam for high-throughput multiplication | J. D. Harshitha, V. P. Santhanakrishnan, P. Meenakshisundaram, K. Hemaprabha, N. Manikanda Boopathi, M. Raveendran and R. Gnananam | 1205-1210 |
| 35.  | Genetic variability and association analysis in F3 derivatives of IC 436656 x KKB14045 in black gram (Vigna mungo L. Hep/) for agro-morphological traits | D. Gomat, D. Shoba, V. Ramamoorthy and M. Arumugam Pillai | 1211-1214 |
| Research Note                                                                 | Page Numbers  |
|------------------------------------------------------------------------------|--------------|
| 36. Combining ability effects and nature of gene action for grain yield and  | 1215-1221    |
| quality parameters in pop corn (*Zea mays* var. *everta*)                   |              |
| *Goutam Rana, Preeti Sharma, Mehar Chand Kamboj and Narender Singh*          |              |
| 37. Genetic variability studies in cherry tomato ([*Solanum lycopersicum*](http://example.com) (L.) var. *cerasiforme* Mill.] for growth, yield and quality | 1222-1226    |
| *E. Venkadeswaran, P. Irene Vethamoni, T. Arumugam, N. Manivannan, S. Harish*, |              |
| *R. Sujatha and E. Alli Rani*                                                |              |
| 38. Screening of sesame (*Sesamum indicum* L.) genotypes for major diseases   | 1227-1232    |
| *Manjeet, Ram Avtar, Anil Kumar, R K Sheoran and P K Verma*                  |              |
| 39. Genetic variability for pod yield and related traits in garden pea (*Pisum sativum* L.) | 1233-1239    |
| *Ajay Bhardwaj, Akhilesh Sharma and Hem Lata*                                |              |
| 40. Descriptive statistical analysis and variability studies in germplasm     | 1240-1245    |
| collections of barnyard millet (*Echinochloa frumentacea* L.)               |              |
| *C. Vanniarajan and R. Chandirakala*                                         |              |