

Contents

S.No	Title	Page No.
Research Articles		
Cereals		
1	TNAU Rice CO 51 (IET 21605) - A high yielding short duration fine grain rice variety for Tamil Nadu S. Robin, K. Mohanasu ndaram, S. Manonmani, S. Rajeswari, P. Jeyaprakash, R. Pushpam, K. Thiagarajan, R. Rabindran, S. Suresh, V. Ravichandran and S. Radhamani	324-333
2	Optimization of tissue culture protocol for rapid regeneration of traditional therapeutic rice genotype 'Kavuni' P. Rakshana, R. Valarmathi and M. Raveendran	334-340
3	Combining ability studies for yield and quality traits in aromatic genotypes of rice (<i>Oryza Sativa. L.</i>) Dilruba A. Bano and S. P. Singh	341-352
4	Stability analysis for fodder yield and its contributing traits in forage sorghum [<i>Sorghum bicolor</i> (L.) Moench] hybrids P. R. Patel, S. K. Jain, R. M. Chauhan and P. T. Patel	353-363
5	Studies on correlation of amylose content and grain dimensions in Basmati rice (<i>Oryza sativa</i> L.) Rakhi Bhardwaj, R. K. Salgotra and Manmohan Sharma	364-369
6	Gene action and combining analysis for kernel yield and its attributing traits in maize [<i>Zea mays</i> (L.)] Khushbu Patel, R. A. Gami, K. G. Kugashiya, R. M. Chauhan, R. N. Patel and R. M. Patel	370-376
7	Screening of rice cultivars for resistance to sheath rot (<i>Sarocladium oryzae</i>) R. Pushpam, S. Nithya, S. Fathima Nasrin, E. Meena, K. Ramamoorthy, V. K. Parthiban and M. Arumugam Pillai	377-381
8	Studies on genetic parameters, correlation and path analysis for yield attributes in the maintainer and restorer lines of pearl millet [<i>Pennisetum glaucum</i> (L.) R.Br] R. Rasitha, K. Iyanar, R. Ravikesavan and N. Senthil	382-388
9	Stability analysis over different environments for grain yield and its components in hybrid rice (<i>Oryza sativa</i> L.) K. Parimala, Ch. Surender Raju, S. Sudheer Kumar and S. Narender Reddy	389-399
10	Evaluation of different seed priming methods for improvement of seedling growth of barnyard millet (<i>Echinochloa frumentacea</i> L.) cv. MDU-1 S. Suruthi, K. Sujatha and C. Menaka	400-405
11	Parental evaluation and polymorphism survey of drought contrasting donor and recurrent parents in rice (<i>Oryza sativa. L.</i>) using microsatellite markers Venkateshwarlu Challa and Paresh Chandra Kole	406-412
12	Evaluation of rice landraces for resistance to plant hoppers and leafhoppers K.Venkatesh, R. P. Soundararajan, N. Muthukrishnan and P. Jeyaprakash	413-418

13	Studies on genetic parameters and combining ability in maize for the production of hybrids with low phytic acid J. Lydia Pramitha, A. John Joel, Jacob George, R. Sreeja and R. Ravikesavan	419-429
14	Genetic variability and association studies in barnyard millet (<i>Echinochloa frumentacea</i> (Roxb.) Link) germplasm under sodic soil condition R. Dhanalakshmi, A. Subramanian, T. Thirumurugan, M. Elangovan and T. Kalaimagal	4330-439
15	Combining ability analysis for yield and yield contributing traits in rice (<i>Oryza sativa</i> L.) C. Deepika, R. P. Gnanamalar, K. Thangaraj and N. Revathy	440-445
16	Relationship among grain yield and its component traits in Sorghum (<i>Sorghum bicolor</i> (L.) Moench) germplasm accessions V. KI. Sri Subalakhshmi, B. Selvi, D. Kavithamani and N. Vadivel	446-450
17	Dus characterization and genetic variability studies of rice mutants K. Aravind, S. Banumathy, C. Vanniarajan, P. Arunachalam, M. Ilamaram and K. Kalpana	451-461
18	Assessment of longevity of single cross maize hybrids and parental lines B. Shineewanrialmas, C. Menaka and A. Yuvaraja	462-475
19	Screening of paddy varieties against angoumois grain moth, <i>Sitotroga cerealella</i> Oliv. Sandra Maria Mathew, S. Jeyarajan Nelson, R. P. Soundararajan, D. Uma and P. Jeyaprakash	476-482
20	Association and variability studies in F ₂ population of sorghum (<i>Sorghum bicolor</i> (L.) Moench) S. Subhashini and B. Selvi	483-489
21	Effect of proton beam irradiation on survival and seedling growth parameters of Indian rice (<i>Oryza sativa</i> L.) variety 'Indira Barani Dhan 1' Anjali Chauhan, Vikash Kumar, Preethi. R. Iyer, Gautam Vishwakarma, J. P. Nair, P. Surendran, Hillary Sparrow, A. K. Gupta, A. S. Shitre, A. K. Shinde, R. L. Kunkerkar, Deepak Sharma, Ravi Raj Singh Patel and B. K. Das	490-499
22	Combining ability and association studies on different yield contributing traits for enhanced green cob yield in sweet corn (<i>Zea mays</i> con var <i>saccharata</i>) A. Chinthiya, K.N. Ganesan, R. Ravikesavan and N. Senthil	500-511
23	Genetic variability and association studies in F ₂ generation of rice (<i>Oryza sativa</i> L.) T.V. Abigail Seneega, R. P. Gnanamalar, C. Parameswari, S. Vellaikumar and A. R. Priyanka	512-517
24	Genetic variability, character association and path analysis for yield and yield component traits in maize (<i>Zea Mays</i> L.) R. Prakash, R. Ravikesavan, N. Kumari Vinodhana and A. Senthil	518-524
25	Study on the impact of mutagenic treatment on pollen and spikelet fertility and its relationship in rice (<i>Oryza sativa</i> L.) M. Akilan, G. Anand, C. Vanniarajan, E. Subramanian and K. Anandhi	525-534
26	Qualitative characterization and clustering of Early-maturing Barnyard millet (<i>Echinochloa spp.</i>) Germplasm M. Kuraloviya, C. Vanniarajan, M. Vetriventhan, C. Babu, S. Kanchana and	535-541

	R. Sudhagar	
27	Comparative efficiency of irradiation and its recurrent mutation on induced variability and population characteristics in rice (<i>Oryza sativa</i> L.) D. V. Sushmitharaj, P. Arunachalam, C. Vanniarajan, J. Souframanien and E. Subramanian	542-551
28	Genetic variability for seedling stage salinity tolerance in barnyard millet [<i>Echinochloa frumentaceae</i> (Roxb.) Link] Greetty Williams, C. Vanniarajan, M. Vetriventhan, S. Thiageshwari, K. Anandhi and B. Rajagopal	552-558
29	Morphological Characterization of mutant lines of Nagina22 in rice (<i>Oryza sativa</i> L.) N. P. Sakthi Avinash, K. Manonmani, R. Muthuvijayaragavan, S. Rajeswari, S. Manonmani, M. Raveendran and P. Jeyaprakash	559-565
30	Studies on genetic variability in finger millet [<i>Eleusine coracana</i> (L.) Gaertn] genotypes under sodic conditions K. Keerthana, S. Chitra, A. Subramanian, S. Nithila and M. Elangovan	566-569
31	Field screening of wild introgressed rice lines for resistance to yellow stem borer, <i>Scirpophaga incertulas</i> W. S. J. Reuolin, R. P. Soundararajan and P. Jeyaprakash	570-575
32	Assessment of genetic variability, heritability and genetic advance in backcross population of BC ₁ F ₁ , BC ₂ F ₁ and BC ₂ F ₂ in Maize C. Sarankumar, M. Dhasarathan, D. Kavithamani C. Vanniarajan, E. Kokiladevi, R. Ravikesavan, and N. Senthil	576-584
33	Studies on genetic variability, association and path coefficient analysis in F ₂ derivatives of CR 1009 × WP 22-2 for earliness and semi-dwarfism in rice (<i>Oryza Sativa</i> L.) T. Hema, S. Saravanan, R. Kannan, D. Shoba and M. Arumugam Pillai	585-591
34	Frequency distribution of yield related traits in BC ₁ F ₁ , BC ₂ F ₁ and BC ₂ F ₂ backcross population of maize C. Sarankumar, A. Karthikeyan, C. Vanniarajan, E. Kokiladevi, R. Ravikesavan and N. Senthil	592-600
35	Genetic variability and association studies in F ₂ population of rice under sodicity S. Kalaiselvan, A. Subramanian, T. Thirumurugan and V. Rajanbabu	601-613
36	Comparative profiling of volatile compounds in the grains of rice varieties differing in their aroma A. Shanthinie, Kambale Rohit Dilip and M. Raveendran	614-619
37	Genetic studies on TGMS lines for development of superior two line rice hybrids K. Srimathi, M. Arumugam Pillai, N. Aananthi and C. Rajababu	620-626
38	Characterization of rice (<i>Oryza sativa</i> L.) landraces based on agro-morphological traits K. Keerthivarman, S. Juliet Hepziba, R.P.Gnanamalar and J. Ramalingam	627-635
39	Rapid screening for drought tolerance in traditional landraces of rice (<i>Oryza sativa</i> L.) at seedling stage under hydroponics K. Pravin kumar, Asish K. Binodh, S. Saravanan, A. Senthil and N. Senthil Kumar	636-644
40	Marker assisted introgression for brown plant hopper resistance genes <i>Bph20</i> and <i>Bph21</i> in CO43 <i>Sub1</i> variety of Rice B. Mohanapriya, P. Jeyaprakash, M. Raveendran, R. P. Soundararajan, S. Ramchander, G. Subashini, P. Prabhakaran, K. Manonmani and S. Robin	645-652

41	Evaluation of recombinant inbred lines of IR20 and Nootripathu for root traits ALS Elaventhana, S. Reena, M. Raveendran and A. John Joel	653-658
42	Screening of barnyard millet (<i>Echinochloa frumentacea</i>) germplasm for salinity tolerance N. Arthi, B. Rajagopal, S. Geethanjali, A. Nirmalakumari and N. Senthil	659-666
Pulses		
43	Genetic diversity in land races of pigeonpea (<i>Cajanus cajan</i> (L.) Millsp.) S. E. Diwakar Reddy and P. Jayamani	667-672
44	Validation of genetic parameter for yield related traits among indigenous mung bean (<i>Vigna radiata</i> L.) germplasm M. Sneha, S. Saravanan, S. Merina Premkumari and M. Arumugam Pillai	673-679
45	Screening of blackgram varieties and role of biophysical characters on damage potential of spotted pod borer, <i>Maruca vitrata</i> fabricius F. Miriam Amala Saleesha, V. R. Saminathan, S. Sheeba Joyce Roseleen, V. Rajanbabu, C. Gailce Leo Justin, and N. Manivannan	680-684
46	Genetic variability studies in Lentil (<i>Lens culinaris</i> Medic.) genotypes for seed yield and attributes P. B. Vanave, A. H. Jadhav, A.V.Mane, S. G. Mahadik, M. G. Palshetkar and S. G. Bhawe	685-691
47	Evaluation of <i>Vigna</i> germplasms for resistance to <i>mungbean yellow mosaic virus</i> using agro inoculation B. Madhumitha, A. Karthikeyan, M. Kanimoli Mathivathana, K. Eraivan Arutkani Aiyannathan, and M. Sudha	692-698
48	Genetic variability for morphological and biometrical traits in chickpea (<i>Cicer arietinum</i> L.) P. V. Aswathi, K. Ganesamurthy and P. Jayamani	699-705
49	Identification of restorers and maintainers for A ₂ and A ₄ cytoplasm based CGMS lines in early maturing pigeonpea (<i>Cajanus cajan</i> (L.) Millsp.) A.Kumaresan and P. Jayamani	706-711
50	Correlation analysis for yield, yield components and MYMV disease scores in blackgram (<i>Vigna mungo</i> (L.) Hepper) K. Vadivel, N. Manivannan, A. Mahalingam , V. K. Satya, C. Vanniarajan and V. R. Saminathan	712-716
51	Genetic diversity studies in Lablab (<i>Lablab purpureus</i> L.) genotypes P. Dhivyabharathi, V. Rajasree, H. Usha Nandhini Devi and V.Thiruvengadam	717-719
52	Studies on interrelationship and path coefficient analysis of fodder yield and yield component traits in fodder cowpea (<i>Vigna unguiculata</i> L. Walp) T. Navaselvakkumar, C. Babu, R. Sudhagar and S.D. Sivakumar	720-726
53	Evaluation of pigeonpea (<i>Cajanus cajan</i>) genotypes against pigeonpea sterility mosaic disease L.M.Tharageshwari, A. Thanga Hemavathy, P.Jayamani and L. Karthiba	727-731

54	Assessment of variability for seed yield, component characters and MYMV disease resistance in segregating populations of blackgram [<i>Vigna mungo</i> (L.) Hepper] K. Vadivel, N. Manivannan, A. Mahalingam ,V. K. Satya, C. Vanniarajan and V. R. Saminathan	732-735
55	Genetic variability and heritability study on yield and its component traits in segregating population of cowpea (<i>Vigna unguiculata</i> L. Walp) T. Meenatchi, K. Thangaraj, R. P. Gnanamalar and Kavitha Pushpam	736-741
56	Genetic divergence studies in blackgram (<i>Vigna mungo</i> (L.) Hepper) V. Jayashree, A. Muthuswamy, P. Jayamani and K. K. Kumar	742-747
Oilseeds		
57	Genetic diversity analysis of sesame – A bayesian clustering approach R. Nivedha, M. R. Duraisamy, Patil Santosh Ganapathi and S. Manonmani	748-753
58	Genetic divergence analysis of castor (<i>Ricinus communis</i> L.) S. Nagarajan, PL. Viswanathan, S.R. Venkatachalam, S. Manickam and N. Ganapathi	754-760
59	Genetic analysis of variability, heritability and genetic advance in F ₃ populations of sunflower (<i>Helianthus annuus</i> L.) S. Divya, T. Kalaimagal, S. Manonmani and L. Rajendran	761-765
60	Genetic divergence in castor (<i>Ricinus communis</i> L.) V. Ranjitha, S. R. Venkatachalam, P. Arutchenthil and P. Kathirvelan	766-771
61	Genetic diversity study in germplasm lines of sesamum (<i>Sesamum indicum</i> L.) G. D. Arpitha, S. Manonmani, P. L. Viswanathan and M. Raveendran	772-777
62	Combining ability analysis for yield and yield attributes in Indian mustard [<i>Brassica juncea</i> (L.) Czern & Coss.] Ramandeep Kaur, Ravindra Kumar, Satveer Kaur, Harjinder Singh and Ikbal Singh	778-784
63	Characterization of sesame varieties through image analysis V. Vasanthan, R. Geetha, C. Menaka, V. Vakeswaran and K. Chidambaram	785-790
64	Phenotypic screening of introgressed lines (Ils) for resistance to late leaf spot and rust diseases in groundnut (<i>Arachis hypogaea</i> L.) N. Ramya selvi, PL.Viswanathan, S. Manonmani, L. Rajendran and S. Sundravadana	791-796
65	Radio sensitivity studies in white seeded sesame (<i>Sesamum indicum</i> L.) G. Ariharasutharsan, C. Parameswari, C. Vanniarajan , E. Murugan and Chelvi Ramesh	797-803
66	Genetic diversity analysis of high oleic inbred lines in sunflower (<i>Helianthus annuus</i>) S. Viswa Bharathy, PL. Viswanathan, S. Manonmani and R. Chandirakala	804-808
67	Comparative study on multivariate outlier detection methods in sesame (<i>Sesamum indicum</i> L.) K. Muthu Prabakaran, P. G. Saravanan, S. Manonmani and V. Anandhi	809-815
68	Study on the combining ability and gene action in sunflower through line X tester mating design S. S. Lakshman, N. R. Chakrabarty and P. C. Kole	816-826
Cotton		
69	Estimation of heterosis and combining ability in interspecific cotton hybrids	827-837

Abasianyanga Isong, Amala Balu, Chioma Isong and Eunice Bamishaiye		
70	Studies on diversity, abundance and pollination efficiency of insect pollinators and pollination mechanism involved in sun hemp (<i>Crotalaria juncea</i> L.) S. R. Rakesh, N. Meenakshi Ganesan, M. R. Srinivasan and M. Kumar	838-851
71	Heterosis studies in interspecific cotton hybrids (<i>Gossypium hirsutum</i> L. × <i>Gossypium barbadense</i> L.) under irrigated condition S. Malathi, Rajesh S. Patil and H. S. Saritha	852-861
72	F ₁ Interspecific hybridity confirmation in cotton through morphological, cytological and molecular analysis M. Muthuraj, L. Mahalingam, N. Premalatha, K. Senguttuvan and M. Kumar	862-873
73	Genetic investigation on compact cotton (<i>Gossypium hirsutum</i> L.) using its segregating population (F ₂) J. Muthukaruppaiah, M. Kumar, N. Premalatha, K. Monisha and K. Senguttuvan	874-880
74	Genetic engineering of tobacco with <i>EfIRT2</i> Gene Nikam Shweta, S. Varanavasiappan, A. John Joel, T. K. Manape, L. Arul, E. Kokiladevi, K. K. Kumar and D. Sudhakar	881-888
Horticultural crops		
75	Genetic diversity in king chilli (<i>Capsicum chinense</i> Jacq.) genotypes through SDS-PAGE Ephilo Mena, Siddhartha Singh, Mohd Talha Ansari and Md. Ramjan	889-898
76	Studies on performance of certain indigenous and exotic coconut genotypes [<i>Cocos nucifera</i> L.] M. Suchithra and P. Paramaguru	899-921
77	Assessment of colchicine sensitivity in African marigold (<i>Tagetes erecta</i>) var. Pusa Narangi Gainda R. Nandhini, P. Aruna, A. Sankari and R. Ravikesavan	922-929
78	Effect of cryo-storage on the germinability and biochemical changes in the papaya (<i>Carica papaya</i> L.) seeds P. Sharmela, V. Thiruvengadam, S. Ganesh Ram and K. Soorianathasundaram	930-935
79	Molecular characterization of banana bunchy top virus movement protein encoding DNA-M component isolated from hill banana and Grand Naine Ruma Debbarma, K. K. Kumar, D. Sudhakar and K. Soorianathasundaram	936-943
80	Effect of cryo-storage on the germinability of bitter gourd (<i>Momordica charantia</i> L.) seeds M. Sharmila, S. Ganesh Ram, V. Thiruvengadam and R. Swarnapriya	944-948
Small millets		
81	Mutagenic effectiveness and efficiency in barnyard millet (<i>Echinochloa frumentacea</i>) using physical, chemical and combination of mutagens M. Ramesh, C. Vanniarajan, Ravikesavan, K. Eraivan Arutkani Aiyathan and P.P. Mahendran	949-956
82	Determination of lethal dose and effect of EMS and gamma ray on germination percentage and seedling parameters in barnyard millet variety Co(Kv)2 M. Ramesh, C. Vanniarajan, Ravikesavan, K. Eraivan Arutkani Aiyathan, and P. P. Mahendran	957-962
Acknowledgement		