



**CENTRE OF ADVANCED FACULTY TRAINING
GENETICS AND PLANT BREEDING
CENTRE FOR PLANT BREEDING AND GENETICS
TAMIL NADU AGRICULTURAL UNIVERSITY, COIMBATORE, TAMIL NADU**

INTRODUCTION

The Directorate of Centre for Plant Breeding and Genetics is being a major Centre in TNAU involved in crop improvement activities and comprised of eight departments viz., Department of Rice, Department of Millets, Department of Pulses, Department of Oilseeds, Department of Cotton, Department of Forage Crops, Department of Plant Genetic Resources and Department of Genetics and Plant Breeding. The Breeder Seed Unit functioning under this Directorate is monitoring and coordinating the Breeder Seed Production of entire Tamil Nadu for both Agricultural and Horticultural Crop. The mandates of this directorate includes teaching, research and extension *ie.*, handling courses on Genetics, Cytogenetics, Plant Breeding and PGR related courses to UG, PG and Ph.D students through quality teaching, conducting research on crop varietal development and dissemination of knowledge on crop varieties to the farmers. It is one of the highly reputed Directorate which is the main centre for many of All India Coordinated Research trials (AICRP) of various crops. Many network research projects are handled in various departments of this Directorate in collaboration with National and International Institutes. This Directorate is monitoring and coordinating all the teaching and research activities of entire TNAU with respect to Plant Breeding and Genetics.

Objective of CAFT

- To conduct training programmes for the scientists of SAU and ICAR institutes
- To conduct summer institutes wherever sanctioned by the council
- To conduct special lectures of invited faculty
- To conduct a research programme involving the postgraduate student(s)
- To equip post graduate laboratory

Faculty: Name & Designation (as on 20.01.2020)**Dr. S. Geetha****Director, DCPBG and Course Director for CAFT****Professor and Heads**

S. No.	Name of Head and Department
1.	Dr. K. Ganesamurthy, Department of Rice
2.	Dr. R. Ravikesavan Department of Millets
3.	Dr. P. Jayamani Department of Pulses
4.	Dr. PL. Vishwanathan Department of Oilseeds
5.	Dr. S. Rajeswari Department of Cotton
6.	Dr. C. Babu Department of Forage Crops
7.	Dr. S. Manonmani Department of Plant Genetic Resources
8.	Dr. N. Meenakshi Ganesan Department of Genetics and Plant Breeding

Professors	
Dr. B. Selvi Sorghum Breeding	Dr. L. Mahalingam Cotton Breeding
Dr. T. Kalaimagal PG Education	Dr.R. Saraswathi Rice Breeding
Dr. K. N. Ganesan Breeder Seed Unit	Dr. S. Ganesh Ram Education
Associate Professors	
Dr. R. Pushpam Rice Breeding	Dr. K. Iyanar Pearl Millet breeding
Dr. D. Kumaresan Rice Breeding	Dr. R. Kalaiyarasi Education
Assistant Professors	
Dr. K. Amudha Rice Breeding	Dr. D. Kavithamani Sorghum Breeding
Dr. N. Kumari Vinodhana Maize Breeding	Dr. A. Muthuswamy Blackgram Breeding
Dr. P. Anantharaj Chickpea Breeding	Dr. A. Thangahemavathi Pigeonpea Breeding

Dr. N. Premalatha Cotton Breeding	Dr. R. Sasikala Sunflower Breeding
Dr. T. Ezhilarasi Forage Breeding	Dr. V. Thiruvengadam Plant Genetic Resources
Dr. S. Geethanjali Education	Dr. S. Utharasu Education

Human Resource Development

Particulars of Short Courses / Training program for HRD conducted during 2017 to 2020 period

S. No.	Name of the Program	Period	No. of Participants		
			Internal	External	Total
CAS Training					
1.	Recent advance and accomplishments in heterosis breeding of crops	2017-18	4	13	17
2.	Applications of molecular markers in crop breeding	2018-19	4	14	18
3.	Innovative breeding approaches for stress tolerance in crop plants for climate change	2019-20	1	22	23

Infrastructure development (equipments etc.):

- A separate Centre of Excellence in Molecular Breeding has been established for advanced research in plant Breeding and crop improvement in molecular aspects to develop climate resilient crop varieties.
- A separate laboratory for Marker Aided Selection has been established for applying molecular marker techniques in plant breeding genetics. Recently an addition of Ploidy analyser has been installed at the MAS laboratory for accurate measurement of ploidy level in crop plants.
- A tissue culture laboratory has been established for conducting research on anther and embryo culture in various crops and also for screening of abiotic stress tolerance.
- Existing Cytogenetics Laboratory has been strengthened by adding a fluorescent microscope with image camera and facilities for microtomy.
- Recently the genetics glass house has been renovated and upgraded to facilitate the screening of transgenic plants and rice to Brown planthopper.

- The seminar hall has been renovated and provided with public address system, TV, VCR and other audio-visual aids. New furniture have provided to the seminar hall.
- A new LCD projector with projection screen has been added to the PG and Ph.D., class rooms and the credit goes to the CAFT in Genetics and Plant Breeding.
- A separate computer room has been established with necessary facilities for the data analysis by the post graduate students. All the old computers have been upgraded with latest configurations.
- The library of Centre for Plant Breeding and Genetics has been improved to a very great extent and the credit goes to the CAFT in Genetics and Plant Breeding.
- All the recent books in the fields of genetics, cytogenetics, tissue culture, Molecular biology and plant breeding were purchased.
- The library in the centre remains as an immediate reference source for the teachers and students. Every year new books have been added to the library of the centre as well the central library of the university.

Awards/Recognitions

- **Department of Forage crops** awarded with ‘**Best AICRP centre in India**’ by IACR during 2017 for its significant contribution in the development of world class Cumbu Napier hybrids and forage resources
- **Dr.S.Robin**, Professor, was awarded the Conferred fellow of NAAS for the year 2017.
- **Department of Forage Crops** awarded with ‘**Best Seed production centre**’ in TNAU during 2018 of the 48th TNAU foundation day for the production and distribution of forage seeds/vegetative propagules in a massive way.
- **Department of Millets** awarded with ‘**Best AICRP centre award for Sorghum**’ by IACR during 2019 for its significant contribution in the Sorghum Breeding.
- **Dr. P. Jayamani**, Professor, awarded **Best Poster award** in National symposium on Pulses for nutritional security and Agricultural sustainability, IIPR, Kanpur, 2-4 December 2017.
- **Dr. D. Kavithamani**, Assistant Professor, awarded Best seed production scientist award for the year 2016 on 02.07.2018 by the Tamil Nadu Agricultural University, Coimbatore.
- **Dr. P. Jayamani**, Professor and Head, Department of Pulses was awarded **Best seed Producton Scientist award 2019** by the Tamil Nadu Agricultural University, Coimbatore.

Publication

Total number of books /book chapters published by existing permanent faculty in the last two years (2018 & 19)

Books

- Geetha, S.,** T.Vetrivel, P.Ramakrishnan, P.Sudha, and S.Alagendran. 2018. Abstracts of Oral, Poster and review papers of International Symposium on Innovations and Advancements in Agriculture and Plant Sciences (IAAPS 2018) held on 23.05.2018 at DSAC, Perambalur, Tamil Nadu. P.243. ISBN:978-81-936779-2-6.
- Geetha, S** and P.Ramakrishnan. 2018. Advancements in Agriculture Research. P. 284. ISBN: 978-81-937-53-77-4.
- Babu, C., K. Iyanar,** S.D. Sivakumar and K.Ganesamurthy. 2018. Forage Crops and Dairying. ISBN: 978-93-83799-91-6
- Geetha, S. 2019.** A text book on basics of genetics and cytogenetics. P.227. ISBN: 978-93-5359-023-9.
- Geetha, S. 2019.** Introduction to Agricultural Botany. P.364. ISBN: 978-81-937537-4-3.

Book Chapters

- Ravikesavan, R, N.Kumari Vinodhana,** J.Lydia and A.Senthil. 2018. “Drought stress in maize (*Zea mays* L.) – an Overview”. Book on Abiotic Stress Management for Sustainable Agriculture, P No. 169-183. ISBN No.978-93-87314-77-1
- Mahalingam, L.,** K.Senguttuvan, **N.Premalatha** and **M.Kumar.** 2018. Book of Abstracts of International Congress on Cotton and other Fibre Crops. Pp.240-247. ISBN 9788193678213.
- Babu, C.,** and G. Vijayakumar. 2018. Performance Analysis on TNAU Released Forage Crop Varieties. pp. 9-25. ISBN: 978-93-83799-91-6.
- Babu, C., K. Iyanar** and G. Vijayakumar. 2018. Cumbu Napier Hybrid Grass CO (BN) 5 – A Stupendous Success, pp. 26-31. ISBN: 978-93-83799-91-6.
- Iyanar, K.** and **C. Babu.** 2018. Tree Fodder Production and Non-Conventional Feeds pp. 38-61. ISBN: 978-93-83799-91-6.
- Babu, C., K. Iyanar** and N. Pavithra. 2018. Seed Production Methods in Major Forage Crops, pp. 62-72. ISBN: 978-93-83799-91-6.
- Sivakumar, S.D., **C. Babu,** and N. Pavithra. 2018. Hydroponic System of Fodder Production pp. 109 -115. ISBN: 978-93-83799-91-6.
- Sivakumar, S.D., **C. Babu** and P. Thenmozhi. 2018. Silvi Pasture System - A Way to Solve the Fodder Crisis in Tamil Nadu, pp. 124-130. ISBN: 978-93-83799-91-6.
- Babu, C.,** R.Sudhagar, S. D. Sivakumar and N. Pavithra. 2018. Evolution of Bajra Napier Hybrids in India. ISBN: 978-93-84922-77-1.

- Sivakumar, S.D., **C. Babu**, R. Sudhagar, and P. Thenmozhi. 2018. Drip Fertigation in Bajra Napier Hybrid Grass CO (BN) 5. ISBN: 978-93-84922-77-1.
- Babu, C**, S.D. Sivakumar and N. Pavithra. 2018. Sustainable Fodder Production Under Integrated Watershed Management Programme for Up-liftment of Rural Livelihood in Tamil Nadu. Training manual on “Advances in Integrated Watershed Management for Rural Livelihood” organized by ICAR-IISWC, Ooty, Tamil Nadu.
- Babu, C.**, R. Sudhagar, N. Pavithra and P. Thenmozhi. 2018. Forage Crops: Perspectives of seeds and vegetative propagules production techniques. ICAR-Winter School on “New Vistas in Seed Production, Processing, Seed Enhancement and Marketing”. Seed Centre, TNAU, Coimbatore, pp. 179-184. ISBN: 978-81-937590-3-5.
- Babu, C.**, Sivakumar, S,D, and Pavithra, N. 2018. Livestock and Fodder Scenario in Tamil Nadu. Indian Fodder Scenario: Redefining State Wise Status (eds. A. K. Roy, R. K. Agarwal, N. R. Bhardwaj). ICAR - AICRP on Forage Crops and Utilization, Jhansi, India, pp-156-169. ISBN: 978-93-5382-839-4.

List of Research Publications in SCI Journals coming from the Department during the last five years

- Aiyswaraya S., **R. Saraswathi**, S. Ramchander, R. Vinoth, D. Uma, D. Sudhakar and S. Robin, 2017. An insight into total soluble proteins across rice (*Oryzasativa*L.) germplasm accessions. *Int. J. Curr. Microbiol. App. Sci* 6(12): 2254-2269.
- Dhivyapriya, D.,S. Ramchander, A. Kalamani, M.Raveendran, **P.Jeyaprakash** and S.Robin. 2017. Evaluation of Saltol QTL introgression in Rice: A Study on Co Existence of salinity tolerance and Phytoremediation Effect. *Int.J.Curr. Microbiol. App. Sci.*6(12): 303-309.
- Manu, D.G, S.S. Pramoda, A. Ramanathan, S.Ramchander, **S.Manonmani**, P.Jeyaprakash and S.Robin. 2017. Isolate characterization and pathogenesis of *Ustilagnideavirens* causing false smut disease in rice (*Oryzasativa L.*) *Intl.Curr.Microbiol.App.Sci.* 6 (7).
- Manu, D.G, S.S. Pramoda, A. Ramanathan, S.Ramchander, **S.Manonmani**, P.Jeyaprakash and S.Robin. 2017. Phylogenetic and secondary structure analysis of rice false smut (*Ustilagnideavirens*) fungal isolates using internal transcribed spacer ITS1,5.8S and ITS2. Accepted for publication in *Pharmacognosy (Ref. Phyto -6-3-79)*.
- Sai Rekha, K., M. Kumar, **R. Saraswathi**, S. Mannonmani and M. Raveendran, 2017. Study on critical stages and critical sterility point of thermo-sensitive genic male sterile lines of rice for Two Line hybrid production. *Int.J.Curr.Microbiol.App.Sci* (2017) 6(5): 2128-2135.
- Pushpam, R.**, Vishnu Varthini Nachimuthu, S. Ashwathi, V. Amudhavalli, Haobijam James Wat, S. Induram and S. Manonmani. 2017. Screening of Rice Genotypes for Drought Tolerance using Wax Petrolatum Layer Method. *Int.J.Curr. Microbiol. App. Sci.*, 6 (12): 2397-2406.

- Poornima Jency, **Ravikesavan R**, Sumathi P and Raveendran M, 2017. Effect of chemical mutagen on germination percentage and seedling parameters in Kodomillet variety CO 3. IJCS 2017; 5(2): 166-169.
- Poornima Jency, **R. Ravikesavan** P. Sumathi and M. Raveendran , 2017. Determination of lethal dose and effect of physical mutagen on germination percentage and seedling parameters in kodomillet variety CO 3. Electronic Journal of Plant Breeding, 7(4): 1122-1126.
- Suhasini, B., **R. Ravikesavan**, A.Yuvaraja, 2017. Genetic variability and correlation among yield and yield contributing traits in sweet corn. Madras Agric. J. 103: 293-296.
- Yuvaraja, A.**, K. Rajarajan, K. N. Ganesan, R. Ravikesavan and A.Thangahemavathy. 2017. Principal component, clustering pattern and association Analysis of sweet corn (*ZEA SACCHARATA L.*) inbred lines. Forage Research., **43** (1) : pp. 17-21.
- Manivannan., A, C.R.Anandakumar, **A. Yuvaraja** and N. Sritharan.2017. Genetic variability and interrelationship among biochemical traits of Indian clusterbean (*Cyamopsis tetragonoloba (L.) Taub.*) germplasm. Electronic Journal of Plant Breeding, 8(3): 842-848.
- K.Rajarajan, K.Ganesamurthy, **A. Yuvaraja** and B.Selvi. 2017. Stay-green and other physiological traits as efficient selection criteria for grain yield under drought stress condition in sorghum (*Sorghum bicolor L. Moench*). Electronic Journal of Plant Breeding, 8(2): 497.
- Rajarajan.K, K.Ganesamurthy, M.Myilsamy, **A.Yuvaraja**, B.Selvi. 2017. Genetic Diversity of Sorghum Genotypes for Dought Tolerance Based on Morpho Physiological Traits. Madras Agric. Journal. 103(10-12).304-308.
- Jiji, J., **P. Sumathi** and Senthil, N. 2017. Identification of High Beta Carotene Lines in F5 Generation of Pearl Millet [*Pennisetum glaucum (L.) R. Br.*]. Int.J.Curr.Microbiol.App.Sci.6(5):pp:1-9.
- Sumathi, P.**, Mahalingam Govindaraj, Ponnaiah Govintharaj. 2017. Identifying Promising Pearl Millet Hybrids Using AMMI and Clustering Models. Int.J.Curr.Microbiol.App.Sci. 6(2): 1348-1359.
- Sumathi, P.**, P. Veerabhadhiran, R. Ravikesavan, G. Karthikeyan, N. Meyyazhagan, R. Poonguzhali, C.R. Anandakumar, **K. Ganesamurthy** and S. Revathi. 2017. high yielding downy mildew disease resistant pearl millet composite CO 10. Electronic Journal of Plant Breeding, 8(1): 111-116.
- Santosh Kumar, **Babu, C.**, Revathi S. and Sumathi, P. 2017. Estimation of genetic variability, heritability and association of green fodder yield with contributing traits in fodder pearl millet [*Pennisetum glaucum(L.)*]. IJABR, 7(1): 119-126.
- Sowmiya, P., **P. Sumathi** and S. Revathi. 2016. Estimates of genetic parameters and quantification of β carotene in Pearl Millet (*Pennisetum glaucumL.*) segregating population. Electronic Journal of Plant Breeding, 7(3): 640-648.
- Naveen, R., **P. Sumathi**, and N. Manivannan. 2016. Trait association among beta carotene content and yield attributes in recombinant inbred lines of Pearl millet [*Pennisetum glaucum (L.) R. Br.*]. Agric. Sci. Digest,36(3): 202-206.
- Ashok, A., **P. Sumathi**, P. Veerabhadhiran, J. Poornimajency and S. Revathi. 2016. Development of heteroitic hybrids for quality, yield and its architectural traits in pearl millet [*Pennisetum glaucum (L.) R. BR.*]. Range Mgmt. & Agroforestry. 37(2): 181-184.
- Pushpam, R.**, R. Ravikesavan and T.S. Raveendran.2017. In - ovuloembryo culture in interspecific crosses of *Gossypium*. Electronic Journal of Plant Breeding, 8(4): 1284-1287.

- Ramchander, L, N, Shunmugavalli, **A. Muthuswamy** and S Rajesh.2017. Induced mutagenic frequency and spectrum of chlorophyll mutants in black gram, *Vigna mungo* (L) Hepper. International Journal of Farm Science., 7(1): 19-22
- Arumugampillai, M, K, N. Shunmugavalli, B.Selvi, **A.Muthuswamy**, G.Anand, R.Pushpam, D.Shoba, S.Saravanan, Asish K Binodh and R. Kannan. 2017. Blackgram KKM 1 (KKB 05011), a rice fallow variety suited for Thamirabarani tracks of Tamil Nadu. Electronic Journal of Plant Breeding., 8(3):900-906.
- Thanga Hemavathy,A**, J.R.Kannan Bapu and C.Priyadharshini.2017. Molecular characterization of Pigeonpea (*Cajanaus cajan* (L.) germplasm by microsatellite markers. Electronic journal of plant breeding,8(2): 688-694
- Thanga Hemavathy,A**, J.R.Kannan Bapu and C.Priyadharshini. 2017. Principal component analysis in Pigeonpea. Electronic journal of plant breeding, 8(4): 1133-1139.
- Rajendran, L., C.Gopalakrishnan, T. Selvakumar, **N. Manivannan** and PL. Viswanathan. 2017. Effect of TNAU-Pf1 seed bioprimering and foliar spray of newer fungicides on the incidence of leaf blight of sunflower. Journal of Biological Control, 31(2):114-118. (NASS: 5.34).
- Chandirakala, R.**, Abirami, S., Ameena Premnath and N. Manivannan. 2017. Variability studies in F3 Populations of Sun flower. Electronic Journal of Plant Breeding, 8(4): 1236-1239 (NASS: 4.97).
- Ramadoss Bharathi Raja, Somanath Agasimani, Sarita Jaiswal, **Venkatesan Thiruvengadam**, Robin Sabariappan, Ravindra N. Chibbar and Sundaram Ganesh Ram. 2017. EcoTILLING by sequencing reveals polymorphisms in genes encoding starch synthases that are associated with low glycemic response in rice. BMC Plant Biology 17(13).
- Pandiyan, M., **S. Geetha**, R. P. Gnanamalar, D. Packiaraj, A. Mahalingam, D. Sassikumar, D. Dinakaran, R. P. Soundararajan, C. Vijayaraghavan P. Rajarathinam and V.K. Satya. 2018. A new high yielding MYMV disease resistant blackgram variety VBN 8. Electronic Journal of Plant Breeding, 9 (4), 1272-1279.
- Senthil Kumar, K and **S.Geetha**. 2019. Combining ability studies in rice under sodicity condition for yield related traits and physiological parameters. Green Farming. 10(4), 424-429.
- Shoba, D., Roshni Vijayan, S. Robin, N. Manivannan, K.Iyanar, P. Arunachalam, N. Nadarajan, M. Arumugam Pillai and **S. Geetha**. 2018. Assessment of genetic diversity in aromatic rice (*Oryza sativa* L.) germplasm using PCA and cluster analysis. Electronic Journal of Plant Breeding, 10(3):1095-1104.
- Athira, S. S.Vinodhini Bakya, G.Subashini, R. Muthuvijayaraghavan, **S.Rajeswari**, S,Manonmani, M.Raveendran, P.Jeyaprakash and S. Robin. 2018. Exploitation of induced variations for enhancing the biomass production in rice (*Oryza sativa* L.). Electron. J. of Plant Breed., 9(4): 1512-1520.
- Devasena. N., R.P. Soundararajan, S.J. Reuolin, **P. Jeyaprakash** and S.Robin. 2018. Evaluation of Rice Genotypes for resistance to Yellow Stem borer, *Scirpophaga incertulas* (Walker) through Artificial Screening methods. Journal of Entomology and Zoology Studies. 6(1): 874-878.

- Bharanideepan. A., N.M. Praveen, R.Manasa, **P.Jeyaprakash**, M.Muthamilan and A. Ramanathan. 20`8. Phytopathometry of rice leaf blast for the evaluation of slow blasting resistance genotypes. J. Mycol Pl. Pathol. 48 (2): 155-166.
- Rithesh, B.N., S. Ramchander, S. Rajeswari, D. Uma, S. Robin and **P. Jeyaprakash. 2018.** Characterization of physic - chemical properties of starch among traditional and commercial varieties of rice (*Oryza sativa* L.) using rapid visco analyzer. Int.J.Curr.Microbiol.App.Sci (2018) 7(10): 1490-1503.
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- Geetha, S.,** A.Vasuki., P. Jagadeesh Selvam, **R. Saraswathi**, S.L. Krishnamurthy, Palanichamy, Manikandan, M.Dhasarathan, G.Thamodharan and M.Baskar. 2018. Development of Sodicyty tolerant rice varieties through marker assisted backcross breeding. Electronic Journal of Plant Breeding, 8(4) 1013 – 1021.
- Nezam Ali, E., S.Rajeswari, **R.Saraswathi** and P.Jeyaprakash. 2018. Genetic variability and character association for earliness, yield and its contributing traits in F₂ population of Rice (*Oryza sativa* L.). Electron. J. of Plant Breed., 9 (3) : 1163 – 1169.
- Mohana Sundaram, K., S.Rajeswari, **R. Saraswathi**, P. Jeyaprakash. 2019. Heterosis and combining ability analysis for yield related traits in rice hybrids involving landraces. Electron. J. of Plant Breed., 10 (1), 92-100.
- Jeevanapriya, P., **R. Saraswathi**, V.Thiruvengadam and K.Krishna Surendar. 2019. Assessment of genetic diversity in new restorer lines of hybrid rice. Int. J. Curr. Microbiol. App.Sci (2019) 8(7): 530-536.
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- Kanimozhi, P.,**R.Pushpam**, Asish K. Binodh, R. Kannan and M. Arumugam Pillai. 2018. Evaluation of TGMS lines for good floral and out crossing related traits in rice. Electronic Journal of Plant Breeding, 9(4): 1497-1502.
- Manjubala M., R. Vasanthi, Patil Santosh Ganapati and **R. Pushpam.** 2018. Comparative study on different nonparametric stability measures in soybean. Electronic Journal of Plant Breeding, 9 (2) : 551-557.
- Pushpam, R.,** S. Manonmani, V. Ulaganathan, M. Umadevi and S. Robin. 2019. Identification of maintainers and restorers using WA source CMS lines for hybrid rice breeding. *Oryza*, 56 (1): 75-78.
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- Vanitha.J., **K.Amudha**, R.Mahendran, J.Srinivasan, R.Usha Kumari and S.Robin. 2018. Molecular diversity analysis for zinc deficiency tolerance under aerobic rice. Indian J. Plant Genet. Resour. 31(1) 37-43.
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- Rahul Roy, R and **D.Kumaresan**. 2019. Genetic variability and association studies for yield and floral traits in Temperature Sensitive Genetic Male Sterility (TGMS) lines of rice (*Oryza sativa L.*). Electronic J. Plant Breeding, 10(3): 1200-1209.
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- Chandhana, A.S., A. John Joel, **R.Ravikesavan** and D.Uma. 2018. Genetic variability and correlation studies of yield and phytic acid in F2 populations of maize (*Zea mays L.*). Electronic Journal of Plant Breeding, 9 (4) : 1469 – 1475.
- Subbulaxmi,K., **R.Ravikesavan**, C.Babu and **K.Iyanar**. 2018. Study of genetic variability in pearl millet [*Pennisetum glaucum* (L.) R. Br.] hybrids for grain yield and quality parameters. *Agric. Sci. Digest.*, 38(4) 2018: 289-292.
- Nadhitha, G., K.N.Ganesan and **R.Ravikesavan**. 2018. Heterosis and combining ability studies in single cross hybrids synthesized with diverse inbred lines of maize (*Zea mays L.*). Electronic Journal of Plant Breeding, 9 (4) : 1503 – 1511.
- Niji,M.S., **R.Ravikesavan**, K.N. Ganesan and T. Chitdeshwari. 2018. Genetic variability, heritability and character association studies in sweet corn (*Zea mays L. saccharata*). Electronic Journal of Plant Breeding, 9 (3): 1038 – 1044.
- Subbulakshmi K, **R Ravikesavan**, C Babu and **K Iyanar**. 2018. Study on heterosis for grain yield components and nutritional traits in pearl millet (*Pennisetum glaucum* (L.) R. Br.). *Journal of Pharmacognosy and Phytochemistry*,7(6): 1520-1525.
- Swathi L, C Babu, **K Iyanar**, AJ Prabakaran and NA Saravanan. 2018. Assessing the chromosomal stability during cell division in the interspecific hybrids of pearl millet × Napier grass hybrid CO (BN) 5. *Journal of Pharmacognosy and Phytochemistry* 2018; 7(5): 962-964.

- Pushpa , R., D. Sassikumar, **K. Iyanar**, R. Suresh and V. Ravi. 2018. Tapping out the iron and Zinc micronutrient variation in rice germplasm. *Multilogic Science*, Vol. VII, special issue ICAAASTSD. 369- 376.
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Financial Statement**Expenditure under CAFT during 2017- 2020**

Head	2017-18	2018-19	2019-20*
Operating Cost of Training	5,46,114	5,69,559	6,56,500
Recurring Contingency	3,99,735	3,99,386	4,00,000
Non-Recurring	0	7,00,000	0
T.A. & D.A.	31,680	16,524	50,000
Library	34,598	34,980	35,000
Total	10,12,127	17,20,449	11,41,500

***Budget Allotted**