

Institute Projects Details

I. Main Project: -HORTIIHRCIL2015 070: Understanding the physiological and biochemical mechanism, and their application for improving productivity and quality of mandate horticultural crops

Sub-Project	Principal Investigator
070(11): Assessment of floral metabolite profiles and their influence on fruit set in mango	K.S. Shivashankara
070(14): Effect of processing on pesticide residues in horticultural commodities	Partha P. Choudhury
070(15): Investigations on salinity tolerance mechanism in guava genotypes/species	K.K. Upreti
070(16): Evaluation of factors affecting uptake of persistent pesticides in vegetables	Debi Sharma
070(17): Studies on root characteristics of <i>Capsicum</i> species for enhancing water stress tolerance	R.H. Laxman
070(18): Understanding the biochemical and molecular mechanisms of flowering in mango	ShaminaAzeez
070(19): Biochemical basis of rust (<i>Uromycesphaseoli</i> RebenWint.) resistance in French bean (<i>Phaseolus vulgaris</i> L.)	M. Arivalagan
070(): Seed Pre-treatment and abiotic stress tolerance (water and high temperature) in chilli	K. Bhanuprakash
070(): Studies on role of bioagents in excess and deficit moisture stress management in onion	Pritee Singh

II. Main Project: - HORTIIHRCIL2015 110: Development, refinement and use of biotechnological approaches for horticultural crop improvement and production

Sub-Project	Principal Investigator
110(18): Tilling in papaya for enhancing shelf life (Arka Prabhath)	H.S. Vageeshbabu
110(19): Identification of elite germplasm line/s for multi-traits by using tightly linked molecular markers in chilli	Lakshman Reddy, D.C.
110(21): Micro propagation and field-evaluation of PRSV tolerant papaya of intergeneric lineage	P.Nandeesh
110(22): Molecular analysis & mode of action of microbial inoculants(Mis) employed for enhancing plant growth and imparting tolerance to biotic stress	K.V. Ravishankar
110(23): Transmission and Molecular Interaction and Management of Leaf hopper Vector/s in Reduction of Aster yellows in China aster, Chrysanthemum and Marigold	R.Asokan
110(24): Biotechnological interventions for inducing rooting in cuttings of certain fruit crops	H.S. Vageeshbabu
110(25): Genome editing of recessive resistance eIF4 genes in chilli for potyvirus resistance	M. Manamohan
110(26): <i>In vitro</i> mutagenesis of guava for <i>Fusarium</i> wilt resistance	T.R. Usha Rani
110(27): Hybrid Embryo Rescue in Horticultural Crops (Focus on grapes)	P. Nandeesh
110(29): Development of EST-SSRs in <i>Moringa</i> and <i>Murraya</i>	K.N.Poornima
110(30): Development of Doubled Haploids in Vegetable crops	K.N.Poornima
110(31): Exploitation of heterosis in selected fruit crops using doubled haploid technology	H.S. Vageeshbabu

III Main project HORTIIHRSOP2017 161: Application of Bioinformatics in target gene validation for genome engineering of some important insect pests of horticultural crops

CABin – Insect Genomics	Dr. R Asokan
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Externally funded Projects	
National Innovations in Climate Resilient Agriculture (NICRA A/c No-3007)	R.H. Laxman
Central Sector Scheme “Monitoring of Pesticide Residues at National Level”	Debi Sharma
All India Network Project on Pesticide Residues	Debi Sharma
Morphological, Biochemical, and Molecular Characterization of Jamungenotyoes of North- Eastern Region	K.S. Shivashankara
NMPB Funded project on “Utilization of pomegranate for functional Medicinal Ingredient”	Debi Sharma
NPTC-BANANA -ICAR-Network project on Transgenics in crops (NPTC)- “Functional genomics- Fusarium wilt and drought tolerance in banana”	K. V. Ravishankar
DBT-NER- DBT-NER program for NE: “ Screening of banana germplasm for the NE for fusarium wilt resistance and molecular characterization in contrasting genotypes”	K. V. Ravishankar
RKVY-OKRA- RKVY- “Development of yellow vein mosaic virus (YVMV) tolerant okra cultivars using marker assisted selection (MAS)”	K. V. Ravishankar
DBT-BCIL (NER-BPMC)- <i>Biotechnological Interventions through RNAi approach for management of Banana Bunchy Top Virus (BBTV) in Northeast Region of India</i>	Basavaprabhu L. Patil
ICAR-NBAIM- AMAAS - <i>Genomics mediated taxonomy and function analysis of endophyticmicrobiome in horticultural crops and plant microbe interaction studies.</i>	Basavaprabhu L. Patil
DBT -CRISPR mediated control of geminiviruses involved in Papaya leaf curl disease	Basavaprabhu L. Patil
DBT-NER-Banana-K.nwcking-out the virus: E!imination of the endogenous Banana streak viral sequences from banana through genome editing With CRISPR-Cns9 system	Manamohan, M
DBT BIRAC -Development and Transfer of technology from QUT, Australia to India for Biofortification and disease resistance in banana: Transfer and evaluation of Indian Banana with Foc construct	<i>T R Usharani</i>
ICAR NPTC -Transgenic Banana cv. Rasthali resistant to Fusarium wilt”.	<i>T R Usharani</i>
DBT -Ecology of thrips and tospovirus interaction in tomato and watermelon pathosystems	<i>T R Usharani</i>
AMAAS - BIOCLAY- The novel LDH nanocarrier system in increasing the persistence of Bt toxins	<i>R Asokan</i>