

R&D projects implemented through SERB (2012-13 to 2016-17)

Sr. No.	Year of approval	Project Title		State	Sanctioned grant (Rs. In lakh)	Grant Released (Rs. In lakh)	Status
1	2012-13	Development of Piperine Conjugates to Increase the Bioavailability of Iron	GITAM University, Visakhapatnam	Andhra Pradesh	15	14.99	Completed
2	2012-13	Optimization of Operational Parameters for the Extraction of Thiamine from Rice and Wheat Brans and Enrichment of Foods	GITAM University, Visakhapatnam	Andhra Pradesh	9.5	9.16	Completed
3	2013-14	Development of a three dimensional culture system to produce meat from chicken satellite cells	GITAM University, Visakhapatnam	Andhra Pradesh	15	15	Completed
4	2012-13	Quality Assessment of traditionally processed dried fish of the North East India	Gauhati University, Guwahati	Assam	32.93	32.41	Completed
5	2012-13	Development of Degradable Food Packaging Technology 'Green-PACK'	IIT Guwahati	Assam	29.97	29.17	Completed
6	2013-14	Pilot Scale Process Technology for ' BHIM KOL ' (MUSA BALBISIANA) Slice, Grits and Powder using Hybrid Drying Methods	Tezpur University, Napaam	Assam	36.16	36.16	Completed
7	2013-14	Studies on development of cereal based functional breakfast food from the underutilized crops of North-East India	Tezpur University, Napaam	Assam	29.02	29.01	Completed

8	2012-13	Osmotic dehydration and Microwave vacuum drying of Kachkal Banana	Tezpur University, Napaam	Assam	20.81	20.41	Completed
9	2014-15	Development of Value added food products from Leaf Protein concentrate of Green Leafy Vegetables of Assam	Tezpur University, Napaam	Assam	21.55	21.26	Completed
10	2014-15	Development of a Process for Effective use of Acetylcholinesterase (AChE) Biosensors for Quantification of Organophosphate and Organocarbamate Pesticide Residues in Produce	Tezpur University, Napaam	Assam	12.79	12.79	Completed
11	2015-16	Biodegradable Polymer based Thermally Conductive Packaging Films 'Thermo-Pack'	IIT Guwahati	Assam	38.5	34.59	Completed
12	2015-16	Development of shelf stable pork products using retort processing technology for promoting entrepreneurship in north eastern states of India	NRC Pig, Guwahati	Assam	44.15	43.19	Completed
13	2015-16	Evaluation of nutritive values of wild and cultivated edible insects of Assam and their processing for boosting shelf life and rural economy	Gauhati University, Guwahati	Assam	38.92	33.46	Completed
14	2012-13	Kinetic of Thermal Degradation of Chlorophyll in Green Leafy Vegetables and Increasing the Shelf life of the vegetables	NIT Raipur, Raipur	Chhattisgarh	11.71	10.25	Completed

15	2013-14	Development of Phenolic Enriched Multigrain Bread with Improved Functional Quality	IARI, New Delhi	Delhi	49.81	47.12	Completed
16	2013-14	Biotechnological approaches for utilisation of deoiled seed cakes in producing food enzymes and chemicals	IIT Delhi	Delhi	22.91	21.15	Completed
17	2013-14	In vitro assessment of the effects of commercially available nutraceuticals and oligosaccharides as prebiotics on the human gut microflora	IIT Delhi	Delhi	23.23	21.15	Completed
18	2012-13	Development and Optimization of Edible Coating Formulations to Improve the Postharvest Quality and Shelf-life of Underutilized Short Lived Fresh Fruits by using RSM	Sardar Patel University, Vallabh Vidyanagar	Gujarat	17.12	16.19	Completed
19	2013-14	Development of Process of Technology for Functional Snack Food Using Flaxseed	A.D. Patel Institute of Technology, Anand	Gujarat	4.04	4.04	Completed
20	2013-14	Healthy Foods: Production of Stable and Active Probiotics	NDRI, Karnal	Haryana	35.82	28	Completed
21	2013-14	Development of Strip based detection tests for selected adulterants and contaminants in milk	NDRI, Karnal	Haryana	49.84	39.57	Completed
22	2013-14	Development of Chromatographic and PCR Based Methodology to Ascertain the Quality of Milk Fat and its Validation under Filed	NDRI, Karnal	Haryana	14.85	11.18	Completed

		Conditions					
23	2013-14	Production of buffalo casein hydrolysates enriched with antioxidative and immunomodulatory peptides and their application for the development of functional beverage	NDRI, Karnal	Haryana	50	46.66	Completed
24	2013-14	Mineral bound milk based ingredients: Preparation, characterization and application	NDRI, Karnal	Haryana	46.85	41.65	Completed
25	2013-14	Preparation and Characterization of Nanoemulsions of Curcumin for their use in Functional Foods	NDRI, Karnal	Haryana	19.97	14.88	Completed
26	2014-15	Evaluation of Green Functional Foods fortified with Cereal grassesd in reducing risk of Metabolic Syndrome	NIFTEM	Haryana	27.5	14.2	Completed
27	2015-16	Effects of Microfluidization on the quality of fruit flavoured and low fat yoghurt	NIFTEM	Haryana	54.58	35.8	Completed
28	2015-16	Technology of Heart Friendly Herbal - Milk Smoothe with Prophylactic Effect against CVD and Associate Risks	NDRI, Karnal	Haryana	43.36	36.23	Completed
29	2015-16	Evaluation of Anti-biofilm, Anti-microbial effect of natural compounds against food	NIFTEM	Haryana	34.31	27.56	Completed

		- bourne pathogens					
30	2013-14	Extraction of resistant starch from Horse chestnut and rice, its utilization as an encapsulating agent for targeted delivery into the clone	University of Kashmir, Srinagar	J&K	55.45	55.45	Completed
31	2013-14	Use of Natural Resins and Gums for Preservation and Value Addition of Fishery Products	1. Indian Institute of Natural Resins & Gums, Ranchi 2. Mumbai Research Centre of Central Institute of Fisheries Technology, Mumbai	Jharkhand	43.55	27.13	Completed
32	2013-14	Biotechnological approaches to regulate fermentation and drying process of cocoa.	CFTRI, Mysuru	Karnataka	20.36	15.97	Completed
33	2012-13	Production of n-3 Polyunsaturated Fatty Acids Concentrate from Sardine Oil	NIT, Mangalore	Karnataka	46.79	39.81	Completed
34	2012-13	Nutritionally Enriched Innovative Convenience Foods Suitable for Industrial Production from Underutilized Grains	CFTRI, Mysuru	Karnataka	20	17.74	Completed
35	2012-13	Comparative Evaluation of Enzymatic and Fermentative methods for Preparation of Chicken liver Hydrolystates: Recovery, Biofunctional Characterization and	CFTRI, Mysuru	Karnataka	41.64	39.46	Completed

		Application					
36	2012-13	Development of Process for nanoencapsulation of polyphenols for food supplement applications	CFTRI, Mysuru	Karnataka	20.29	18.5	Completed
37	2013-14	Biotechnological Production of Bioactive Metabolites from Therapeutic Fungal Biofactory Ganoderma sp. for Pharmaceutical Applications	CFTRI, Mysuru	Karnataka	26.76	19.88	Completed
38	2013-14	Reverse Micellar Extraction of Lactoferrin from Whey: Continuous Process	NIT, Mangalore	Karnataka	37.6	32.21	Completed
39	2014-15	Developing Inexpensive, Disposable and Biodegradable Food Containers Using Agricultural Wastes	Jain University, Bangalore	Karnataka	7.54	6.77	Completed
40	2013-14	Scale up of chitosan based coating formulation for preservation of selected fruits	CFTRI, Mysuru	Karnataka	21.89	20.96	Completed
41	2014-15	Scale-Up and Down Stream Processing of Stable Pigment & Key Metabolites from Morus Alba	CFTRI, Mysuru	Karnataka	27.58	19.8	Completed
42	2014-15	Edible Confectionery Chews and Functional Beverage Mix for Increased/Sustenance of Energy Levels in Sports Personnel	CFTRI, Mysuru	Karnataka	13.17	11.83	Completed

43	2014-15	Development of technology for production of multigrain semolina mixes and its food application	CFTRI, Mysuru	Karnataka	29.83	29.01	Completed
44	2015-16	Identification and characterisation of bioactive metabolites from the fruits of under-utilized plants: <i>Malpighia glabra</i> and <i>Ixora coccinea</i> their post-harvest processing for value addition	CFTRI, Mysuru	Karnataka	40.54	39.48	Completed
45	2015-16	Development of equipment for grating cum seed separation of Amla and a process for production of green Amla powder	CFTRI, Mysuru	Karnataka	14.36	13.38	Completed
46	2015-16	Development of technologies for value addition to under utilized rhizomes	CFTRI, Mysuru	Karnataka	29.76	23.73	Completed
47	2015-16	Technologies for Development of Value Added Products from Green Coffee	CFTRI, Mysuru	Karnataka	34.42	30.14	Ongoing
48	2012-13	Studies in Physico-Chemical Properties of Plasma Processed Rice grains	ICT, Mumbai	Maharashtra	22.38	17.77	Completed
49	2013-14	Microencapsulation of anthocyanin pigment extracted from kokam (<i>Garcinia indica</i>) processing industry waste	Shivaji University	Maharashtra	33.47	31.45	Completed
50	2012-13	Development of Continous and Energy Efficient Cooking Devices and Practices	ICT, Mumbai	Maharashtra	25.83	16.91	Completed

51	2013-14	Studies on Post Harvest Application of 1-MCP on Shelf Life and Quality of Mango and Tomato Fruits	Dr. Baba Saheb Amedkar Marathwada University, Aurangabad	Maharashtra	38.72	38.72	Completed
52	2013-14	Biochemical composition of Bombay duck fish, and functional characterisation of its muscle proteins	CIFE, Versova	Maharashtra	25	21.56	Completed
53	2013-14	Synthesis and Characterization of Nano-Cellulose and its Application in Biodegradable Polymer Composite Films for Food Packaging	ICT, Mumbai	Maharashtra	32.73	23.91	Completed
54	2013-14	Extraction and Concentration of Bioactive Compounds and Sugars from Horticultural Processing Waste using Microwave-Membrane Technology	IIT Mumbai	Maharashtra	27.63	26.4	Completed
55	2015-16	Intensified Recovery of Valuable Products from Whey using Ultrasound	ICT, Mumbai	Maharashtra	41.41	36.45	Ongoing
56	2014-15	Approaches to Value Addition of the Chow-Chow Fruit by its Fermentation to a Nutritionally Improved Product	State Institute of Rural Development, Nongsder	Meghalaya	33	24.75	Completed
57	2015-16	Development of Cost Effective Microwave-Infrared-UV Assisted Continuous Sterilization Process for Spices	NIT, Rourkela	Odisha	53.62	52.55	Completed

58	2014-15	Development of Functional Mixed Starter Culture for Idli Using Microbial Biodiversity and Interrelationship	Pondicherry University, Pondicherry	Pondicherry	48.8	47.77	Completed
59	2013-14	Chemical, rheological and processing quality of fractions produced by successive size reduction milling of different wheat varieties	GNDU, Amritsar	Punjab	69.2	66.6	Completed
60	2013-14	Improving the microbial safety and nutritional quality of fresh meat using a low cost refrigerated cabinet for retail marketing of meat in street meat shops	Central Institute of Post Harvest Engineering and Technology, Ludhiana	Punjab	11.69	7.84	Completed
61	2014-15	Encapsulation of Natural Bioactive Compounds and Micronutrients for the enhancement of Nutritive, Preservative and Processing functionality of Meat products	GADVASU, Ludhiana	Punjab	55	52.98	Completed
62	2013-14	Development and Quality Evaluation of Gluten free Products for Celiac Disease Patients	GNDU, Amritsar	Punjab	45.42	44.42	Completed
63	2014-15	Reviving the Utilization of Millets and Minor Cereals in Chapatti to Deliver Bioactive Components	GNDU, Amritsar	Punjab	52.88	44.94	Completed
64	2014-15	Isolation and Characterization of Dairy Flora of Punjab Region as Probiotic with Bio-therapeutic Potential and Development of Preservation	GADVASU, Ludhiana	Punjab	70.55	68.54	Completed

		Technology for Ready to Use Cultures					
65	2015-16	Rapid and confirmatory detection of important animal meat based food borne pathogens and its associated toxicants and natural toxicants by using immuno-histopathological and molecular techniques- A step towards One Health Concept	GADVASU, Ludhiana	Punjab	47.46	43	Completed
66	2013-14	Ultrasound processing of liquid food: Feasibility and Efficacy.	IIFPT, Thanjavur	Tamil Nadu	9.98	8.68	Completed
67	2013-14	Phosphine and Carbon dioxide (CO2) Combinations as Alternative to Methyl Bromide to Manage Stored Pests of rice Under Bulk Storage	IIFPT, Thanjavur	Tamil Nadu	39.8	33.29	Completed
68	2013-14	Package of Technologies for On-farm Processing, Value Addition and Safe Storage of Onions	IIFPT, Thanjavur	Tamil Nadu	49.97	45.92	Completed
69	2012-13	Design and development of Ohmic Heating System for Pasteurization of Liquid Egg White and to Enhance the Functional Properties of Egg White Albumen	TNAU, Coimbatore	Tamil Nadu	20.28	15.14	Completed
70	2012-13	Design and Evaluation of a Tamarind Fruit dehuller and Deseeder	TNAU, Coimbatore	Tamil Nadu	10.44	8.53	Completed

71	2012-13	Feasibility Study of Pulse Power Technique: Alternative Technology for Water Treatment	IIT Madras	Tamil Nadu	29.99	25.49	Completed
72	2012-13	Development of database for Indian seafood safety and traceability based on AFLP markers	TNVAS, Thoothukudi	Tamil Nadu	31.45	31.05	Completed
73	2012-13	Prebiotic Efficacy of Xylooligosaccharides (XOS) and their Food Applications	1. TNAU, Coimbatore 2. Anna University, Tamil Nadu	Tamil Nadu	27.7	23.84	Completed
74	2013-14	Developing New Technologies for Processing Sugarcane Juice	Sugarcane Breeding Institute, Coimbatore	Tamil Nadu	38.35	38.35	Completed
75	2013-14	Developing Post Harvest Mechanization Package for Banana Central Core	Central Institute of Agricultural Engineering, Coimbatore	Tamil Nadu	37.96	30.85	Completed
76	2014-15	Lactic acid bacteria of functional interest in nutrition of finger millet	TNAU, Coimbatore	Tamil Nadu	21.84	21.17	Completed
77	2014-15	Industrial Process Development for Meat Preservation by Natural extracts	Anna University, Chennai	Tamil Nadu	35.84	34.88	Completed
78	2014-15	Evaluation of Physiochemical, Nutritional, Pasting and Textural Characteristics of Processed Millets Based Foods	Periyar University, Salem	Tamil Nadu	43.78	42.76	Completed
79	2015-16	Industry waste water treatment adopting pulsed power technique	IIT Madras	Tamil Nadu	60.3	59.57	Completed

80	2014-15	Fabrication of Highly Sensitive nanocomposited MnO ₂ /CNTs Based Sensor for Detection of Hydrogen Peroxide in Milk	Bishop Heber College, Tiruchirappalli	Tamil Nadu	39.82	38.38	Completed
81	2015-16	Identification of sustainable technologies for value chain development of Jackfruit	IIFPT, Thanjavur	Tamil Nadu	51.86	40.35	Completed
82	2015-16	Solar Energy Assisted On-Farm Thresher Cum Winnower Processing Gadgets For Millet Farmers	IIFPT, Thanjavur	Tamil Nadu	48.62	39.31	Ongoing
83	2012-13	Nanopatterning with low temperature process for the production of instant foaming soluble coffee	IIFPT, Thanjavur	Tamil Nadu	48.84	46.16	Completed
84	2013-14	Functionalized polymers for processing of soymilk and apple juice	IICT, Hyderabad	Telangana	33.34	29.67	Completed
85	2015-16	Production of Selenium enriched functional meat through nutrient supplementation in sheep	NRC Meat, Hyderabad	Telangana	51.22	49.29	Completed
86	2015-16	Extraction of Proteins and Phytic Acid from Waste Rice Bran using Biocatalysis	IICT, Hyderabad	Telangana	37.17	37.06	Completed
87	2015-16	Development of nutrient rich, low GI multiple whole grain products	NIN, Hyderabad	Telangana	45	43.32	Completed
88	2015-16	Detection and Quantification of Animal Body Fat (Tallow)/Vegetable Fat in Milk Fat/Ghee	NRC Meat, Hyderabad	Telangana	98.4	96.31	Completed

89	2014-15	Development of intelligent packaging sensors for monitoring quality and safety of meat and meat products in supply chain	IVRI, Bareilly	Uttar Pradesh	44.67	36.89	Completed
90	2014-15	Development of Nano-Immuno Rapid Test to detect Mycobacterium avum subspecies paratuberculosis in Milk samples	CIR Goat, Makhdoom	Uttar Pradesh	65.78	46.23	Completed
91	2015-16	Development of Functional Fish Sausage for Promoting Entrepreneurship	CIFE, Kolkatta	West Bengal	43.31	33	Completed
Total					3182.23	2830.53	

R&D projects sanctioned by MoFPI under PMKSY (2018-19)

Sr. No.	Year of approval	Project Title	Institute/ College/ University	State	Sanctioned grant (Rs. In lakh)	Grant Released (Rs. In lakh)	Status
1	2018-19	Evaluation of tree tomatoes (tamarillo) of Nagaland utilizing the pulp, peel and seeds for its commercialization	Tezpur University, Napaam	Assam	33.04	23.59	On-going
2	2018-19	Development of functional food products from mycelium of medicinal mushrooms	IIT Delhi	Delhi	67	46	On-going
3	2018-19	Application of Refractance Window Dryer in Food Industry/ Food Product	A.D. Patel Institute of Technology , Anand	Gujarat	14.94	7.47	On-going
4	2018-19	Process optimization for oil uptake reduction using protein isolates/ hydrocolloids in the development of deep fried traditional Gujarati snacks	Sardarkrus hinagar Dantiwada Agricultara l University, Sardarkrus hinagar	Gujarat	49.12	40.06	On-going
5	2018-19	Preparation, characterization and evaluation of encapsulated eggplant peel extract in Edible Oil	NIFTEM	Haryana	31.46	24.23	On-going
6	2018-19	Development of instant probiotic fruit juice powder	NIFTEM	Haryana	34.4	25.7	On-going
7	2018-19	Development of a protocol for reduction of acrylamide levels in selected potato based snack foods	NIFTEM	Haryana	25.4	16.45	On-going
8	2018-19	Development of Immunomodulatory Exopolysaccharides Containing Healthy Fermented Dairy Foods	NDRI, Karnal	Haryana	38.39	26.7	On-going
9	2018-19	Studies on application of natural antimicrobial peptides for enhancing shelf life of milk and meat products	LUVAS, Hissar	Haryana	40.54	26.27	On-going
10	2018-19	Effect of thermal processing on proximate composition and antioxidant activity of Indian edible brown seaweed Sargassum wightii and development of	NIFTEM	Haryana	35.86	26.18	On-going

		nutraceuticals and functional food from it					
11	2018-19	Development of bio-fumigation system for safe storage of food commodities against stored product insect pests	CFTRI, Mysuru	Karnataka	16.46	8.23	On-going
12	2018-19	Development of an Antimicrobial Protein/Peptide for Food Industry	CFTRI, Mysuru	Karnataka	66.78	42.39	On-going
13	2018-19	Development of an edible coating containing bio-actives from mulberry leaves for the management of bell pepper anthracnose	CFTRI, Mysuru	Karnataka	25.2	15.1	On-going
14	2018-19	Technology development for micronutrient fortification of semolina, <i>dalia</i> , <i>bansirava</i> and its utilization in traditional and pasta products	CFTRI, Mysuru	Karnataka	29.5	18.75	On-going
15	2018-19	Design, development and application of novel functional nanofiltration membranes for the processing of vegetable oils	CFTRI, Mysuru	Karnataka	83.54	55.27	On-going
16	2018-19	Design and development of hot air assisted continuous Infrared drying system for high value fish and fishery products	CIFT, Cochin	Kerala	27.02	15.75	On-going
17	2018-19	Novel, non-thermal, energy efficient, industrially scalable hydrodynamic cavitation processing of apple juice for enhanced nutritional bioactives and shelf life extension	ICT, Mumbai	Maharashtra	44.1	37.29	On-going
18	2018-19	Modification of Natural Polymers-Starches for better application in food sector	ICT, Mumbai	Maharashtra	24.09	12.04	On-going
19	2018-19	Integrated Processing of Beverages from Minor Tropical Fruits: Process Optimization and Shelf-Life Extension	ICT, Mumbai	Maharashtra	36.47	25.73	On-going

20	2018-19	Development of Good Quality and Healthy Ready to Drink Concoction of Milk Tea	GADVAS U, Ludhiana	Punjab	40.92	31.46	On-going
21	2018-19	Effect of parboiling and germination on composition, functional and processing Characteristics of paddy rice cultivars	GNDU, Amritsar	Punjab	73.08	59.04	On-going
22	2018-19	Integrated coconut processing unit for continuous removal of shell, testa, coconut water and dicing of coconut meat	IIFPT, Thanjavur	Tamil Nadu	51.92	40.96	On-going
23	2018-19	Effective utilization of bio-waste from small onion in food processing applications	IIFPT, Thanjavur	Tamil Nadu	34.36	25.95	On-going
24	2018-19	Designing 3-D printed foods for personalized nutrition	IIFPT, Thanjavur	Tamil Nadu	55.42	34.46	On-going
25	2018-19	Formulation and antioxidant evaluation of value added convenience foods using processed millets	Periyar University, Salem	Tamil Nadu	42.2	27.35	On-going
26	2018-19	Probiotic enriched vitamin B12 fortified food products	Anna University, Chennai	Tamil Nadu	48.03	34.76	On-going
27	2018-19	Development of non-dairy synbiotic food to ensure food safety and combat hidden hunger deficiency.	IIFPT, Thanjavur	Tamil Nadu	30.3	20.65	On-going
28	2018-19	Development of Active Intelligent packaging system with antimicrobial agents for fruits and vegetables	IIFPT, Thanjavur	Tamil Nadu	53.04	45.94	On-going
29	2018-19	Development of diversified millet products	IIFPT, Thanjavur	Tamil Nadu	46.85	32.68	On-going
30	2018-19	Development of technological interventions for enhancement of quality, shelf-life, and microbiological safety of traditional/ethnic meat products (Goan Sausage and Hyderabad Haleem)"	NRC Meat, Hyderabad	Telanga na	25	15.5	On-going
31	2018-19	Value added products from poultry sleeves for environmental and economical viability of poultry processing	IVRI, Bareilly	Uttar Pradesh	50.05	36.27	On-going

32	2018-19	Effect of dual modifications on starch isolated from various cultivars of sorghum for the production of specialty and resistant starches and evaluation of genotype diversity in cultivars using flour as model	MNNIT, Allahabad	Uttar Pradesh	31.61	23.3	On-going
33	2018-19	Extraction, purification and formulation of w-3 PUFA's dosage-form derived from plant source as a health supplement: A replacement strategy for marine based PUFA's	BBAU, Lucknow	Uttar Pradesh	60.35	42.7	On-going
34	2018-19	Utilization of pulse milling by-product for edible use	IIPR, Kanpur	Uttar Pradesh	54	34.5	On-going
35	2018-19	Development of Processing Technology and Prototype Unit for Manufacture & Shelf Life Extension of Sugarcane Juice	IIT KGP	West Bengal	53.9	36.95	On-going
		Total			1474.34	1035.67	