Technologies developed Year-wise at ICAR-NDRI (2000 to 30 June 2024)

S. No.	Name of technology	Approved on	Inventors
Technologies developed- 2006 (2)			
1	Continuous rasogolla ball making machine	07.10.2006	Ruplal Choudhary, S. K. Makkar, K.Narsaiah & S.N. Jha
2	Calcium fortification of milk	2006	
Technologies developed- 2008(2)			
1.	kit for detection of detergent in milk	2008	Rajput, Rajan Sharma & Sumandeep Kaur
2.	Spore Based kit for detection of Antibiotic Residues in milk at Dairy farm	17.12.2008	Naresh Kumar, A.Khan, S.Arora, Raghu H.V., M. Balhara, P.K. Sharma & S. Shaikh
Technologies developed-2011-12 (2)			
1.	Low cholesterol ghee	2011-12	Darshan Lal, Vivek Sharma and Raman Seth
2.	A new test for detergent detection for milk	2011-12	Rajan Sharma, Amit Kumar Barui and Y.S. Rajput
Technologies developed- 2012-13 (17)			
1.	Two stage enzyme based assay" for detection of *L. monocytogenes*in milk	2012-13	Balhara, M., Kumar, N., Thakur, G., Raghu, H. V.,Singh, V. K., Lawania, R., Khan,A., Kouser S. Dairy Microbiology
2.	Development of analytical process for detection of antibiotic residues in milk using spore as biosensor	2012-13	Kumar, N; Sawant, S; Malik, R .K; Patil, G R Dairy Microbiology
3.	Supplements mixtures for cost effective food grade whey based media for *Lactobacillus*spp	2012-13	SurajitMandal, S.K. Tomar and S.K. Kanawjia Dairy Microbiology
4.	Continuous Butter Melter	2012-13	A.K. Dodeja Dairy Technology
5.	Continuous Ghee Making System	2012-13	A.K. Dodeja Dairy Technology

6.	Functional Processed Cheese Spread	2012-13	S.K. Kanawjia, Apurba Giri and Yogesh Khetra Dairy Technology
7.	Quarg type Fresh Cheese with enhanced Health attributes and shelf life	2012-13	S. K. Kanawjia, Hitesh Gahane, Kadiya Kunal and Yogesh Khetra Dairy Technology
8.	Production of buffalo milk set plain dahi using UF technique	2012-13	Pankaj Kumar Meena, Dr. Vijay Kumar Gupta and G.S. Meena Dairy Technology
9.	Production of buffalo milk set plain yoghurt	2012-13	VijeshYadav, Vijay Kumar Gupta and G.S. Meena Dairy Technology
10.	Production of cow milk set plain yoghurt employing ultrafiltration	2012-13	N. M. N. K. Narayana and Dr. Vijay Kumar Gupta Dairy Technology
11.	Production of cow milk set plain dahi employing ultrafiltration	2012-13	Sakshi Khurana andVijay Kumar Gupta Dairy Technology
12.	Iron-Fortified Biscuits from a Composite Dairy-Cereal Mix	2012-13	Devang Jani, KS Gayathry, Latha Sabikhi, A.K. Singh Dairy Technology
13.	Technology of a Functional Milk Drink	2012-13	Kaushik Khamrui and Nipendra Kumar Maurya Dairy Technology
14.	Milk Protein-enriched Bajra Snacks	2012-13	A.K. Singh Dairy Technology
15.	Whey-Skim Milk-Millet Based Complementary Food	2012-13	A.K. Singh Dairy Technology
Technologies developed- 2013-2014(11)			
16.	A Paper Strip Based Test For The Detection of Neutralizers In Milk	2013-14	Rajan Sharma, Y.S. Rajput, Bimlesh Mann and Pachal Bhavesh kumar R. Dairy Chemistry
17.	A Paper Strip Based Test For The Detection of Added Urea In Milk	2013-14	Rajan Sharma, Y.S. Rajput, Bimlesh Mann and Pachal Bhavesh kumar R. Dairy Chemistry
18.	Breakfast Smoothie Using Composite Dairy And Non-Dairy Ingredients	2013-14	Sathish Kumar M.H., Latha Sabikhi, Devaraja H.C., Sumit Arora

			Dairy Technology
19.	Technology of Low-Calorie &Fiber Fortified *MistiDahi*	2013-14	P. Narender Raju Dairy Technology
20.	Functional Quarg Cheese	2013-14	S.K. Kanawjia, Hitesh Gahane, Kadiya Kunal and Yogesh Khetra Dairy Technology
21.	Technology of BajraLassi	2013-14	A.K. Singh Dairy Technology
22.	Whey-Mango Beverage	2013-14	A.K. Singh Dairy Technology
23.	Whey-Jaljeera Beverage	2013-14	A.K. Singh Dairy Technology
24.	Total Mixed Rations	2013-14	S.S. Kundu Animal Nutrition
25.	Manufacturing process for feed blocks	2013-14	S.S. Kundu Animal Nutrition
26.	Sodium sulphate supplementation to reduce methane production	2013-14	S.S. Kundu Animal Nutrition
Technologies developed- 2014-2015 (19)			
27.	Strip based test for detection of glucose in milk	2014-15	Rajan Sharma, Y.S. Rajput, Bimlesh Mann and Panchal Bhavesh kumar R Dairy Chemistry
28.	Strip based test for detection of hydrogen peroxide in milk	2014-15	Rajan Sharma, Y.S. Rajput, Bimlesh Mann and Panchal Bhavesh kumar R Dairy Chemistry
29.	Strip based test for detection of maltodextrinin milk	2014-15	Rajan Sharma, Y.S. Rajput, Bimlesh Mann and Panchal Bhavesh kumar R Dairy Chemistry
30.	An indigenous probiotic strain of *Lactobacillus fermentum*	2014-15	Sunita Grover
31.	An indigenous probiotic strain of *Lactobacillus plantarum*	2014-15	Sunita Grover

32.	Exopolysacchrides producing lactic culture for preparation of low fat lassi	2014-15	Pradip V. Behare, Tomar, Surajit Mandal Dairy Microbiology
33.	Sugar tolerating lactic culture for preparation of MistiDahi	2014-15	SurajitMandal Dairy Microbiology
34.	Low calorie &fiber fortified MistiDahi	2014-15	P. NarenderRaju& Late Dharam Pal Dairy Technology
35.	Aloe vera probiotic lassi	2014-15	Shaik Abdul Hussain, G.R. Patil, R.R.B. Singh Dairy Technology
36.	Reduced fat chhana based dairy spread	2014-15	Kaushik Khamrui, Kumar Amit Raj Dairy Technology
37.	Functional quarg cheese	2014-15	S.K. Kanawjia, Yogesh Khetra, KunalKadiya Dairy Technology
38.	Shelf stable, nutritionally rich smoothies	2014-15	Sathish Kumar, M.H, LathaSabikhi, Thompkinson, Devarja, H.C, Sumit Arora Dairy Technology
39.	Kheer Mohan production from buffalo milk	2014-15	G.S. Meena Dairy Technology
40.	Kheer Mohan production from cow milk	2014-15	G.S. Meena Dairy Technology
41.	PCR based method for differentiating cow and buffalo milk	2014-15	Sachinandan De ABTC
42.	PCR based A1/A2 beta casein genotyping method for milk and milk product	2014-15	Sachinandan De ABTC
43.	High protein iron-fortified bajra biscuit	2014-15	LathaSabikhi, Ashish Kumar Singh, DevangJani, Gayatri, Sumit Arora Dairy Technology
44.	Whey Jaljeera drink	2014-15	Ashish Kumar Singh, Sudhir Singh, G.R. Patil Dairy Technology
45.	Millet-Milk nutrimix	2014-15	Ashish Kumar Singh, P.N. Raju, AmolSahare, D.N. Yadav, Sumit Arora Dairy Technology

Technologies developed- 2015-2016 (15)

46.	Strip based test for detection of sucrose in milk and milk product	2015-16	Rajan Sharma, PriyaeBrathGautam, Y. S. Rajput and Bimlesh Mann Dairy Chemistry
47.	Probiotic cultures *Lactobacillus acidophilus* LaVK2 and *Bifidobacteriumbifidum* BbVK3	2015-16	V K Kansal Dairy Microbiology
48.	Paper strip assay for rapid detection of pesticide residues	2015-16	Kumar N, Tehri N, Gopaul R, Sharma P K, Kumar B, Morab S and Raghu H.V.
49.	Bioprocess for Direct Vat Set MistiDahi Culture	2015-16	SurajitMandal, Sankara Rao N., Siddivinayaka, S.K. Tomar, Pradip V. Behare
50.	EPS producing culture for preparation of Low-Fat Dahi	2015-16	Pradip V. Behare, SurajitMandal, S.K. Tomar
51.	DNA based method for differentiation of cow & buffalo butter / ghee	2015-16	Sachinandan De, Vivek Sharma, Sumit Arora, Sushil Kumar and TanmayHazra
52.	DNA based method for differentiation of cow, buffalo, sheep, goat and camel milk	2015-16	Sachinandan De, Sushil Kumar and DevikaGoutam
53.	DNA based method for differentiation of cow, buffalo, sheep, goat and pig meat	2015-16	Sachinandan De, Sushil Kumar and DevikaGoutam
54.	Buffalo Mammary Epithelial Cell line (BuMEC_ND1)	2015-16	A.K. Mohanty, J.K. Kaushik, Sudarshan Kumar & A.K. Dang
55.	Biofunctional fruit yoghurt	2015-16	ShilpaVij, JagraniMinj
56.	A Process for Iron Fortification of Paneer using edible coating	2015-16	P. NarenderRaju, Parameshwar S. Jotarkar, Ashish Kumar Singh and Sumit Arora
57.	Technology to prepare a kit for the detection of vegetable oil/ fats in ghee	2015-16	Vivek Sharma, Anupama Rani and Sumit Arora
58.	Methodology to confirm the presence of lard in ghee	2015-16	Vivek Sharma, TanmayHazara , Sumit Arora, Rekha Sharma and Sachinandan De
59.	Whey tamarind drink	2015-16	Ashish Kumar Singh and SanketBoradR.R.B. Singh

60.	Whey mango drink	2015-16	Ashish Kumar Singh, Sudhir Singh and G.R. PatilR.R.B. Singh
Technologies developed- 2016-17 (15)			
61.	Technology of Sour dahi using prolific acidifying lactic cultures	2016-17	Pradip Vishnu Behare, S K Tomar and SurajitMandal Dairy Microbiology
62.	Technology for the preparation of high antioxidant activity buffalo casein hydrolysates	2016-17	Rajesh Kumar, Rajeev Kapila, Bimlesh Mann, SumanKapila, NischalMayur Ashok Rao, Somya, GuishanDass and HarishaBodemala
63.	Probiotic bacterial culture for preparation of fermented milk products with immunomodulatory attributes for aging subjects / suckling mothers and newborns	2016-17	Rajeev Kapila, SumanKapila, Rohit Sharma, VamsiSaliganti, MeenaKapasiya and GuishanDass Animal Biochemistry
64.	Microprocessor based automated instrumentation system for pneumatic paneer hoop cum-press unit	2016-17	Chitranayak, M. Manjunatha, F. Magdaline EE, K. Jayraj Rao Dairy Engineering
65.	Prototype of improved butter melting system	2016-17	I. K. Sawhney, Aswin Warner, and P. S. Minz Dairy Engineering
66.	Cooling system for viscous dairy products	2016-17	I. K. Sawhney and P. S. Minz Dairy Engineering
67.	Turbo stage scraped surface heat exchanger	2016-17	Ravi Prajapati, P. S. Minz, I. K. Sawhney, Bikram Kumar and A.K. Singh Dairy Engineering
68.	Pilot plant in-line system for manufacture of traditional Indian dairy products	2016-17	P. S. Minz, I. K. Sawhney, Bikram Kumar and S. P. Agarwala Dairy Engineering
69.	Single stage scraped surface heat exchanger	2016-17	P. S. Minz, I. K. Sawhney and Bikram Kumar Dairy Engineering
70.	Conical process vat (CPV)	2016-17	S. P. Agarwala, I. K. Sawhney, Bikram Kumar and P. S. Minz Dairy Engineering

71.	Web-App for generating techno-economic feasibility report to establish commercial dairy farm	2016-17	Dairy Economics Division Dairy Economics Animal Biochemistry
72.	A device for dialysis of samples in microlitre volume	2016-17	Y. S. Rajput Animal Biochemistry
73.	A multipurpose device for dialysis, concentration and buffer exchange of samples in microlitre volume	2016-17	Y.S. Rajput & M.P. Divya Animal Biochemistry
74.	Aptamers for Aflatoxin M1	2016-17	ShilpiMaihotra. Y. S. Rajput and Rajan Sharma Animal Biochemistry
75.	Aptamers for Betacasomorphin-7	2016-17	Y. S. Rajput. Abhishek and Rajan Sharma
Technologies developed- 2018 (30)			
76.	Enzyme Modified Cheese Technology	3.01.2018 (36th ITMC)	B.C. Ghosh and S. J. Narotambha SRS Bengaluru
77.	A new rapid test for detection of detegent in milk	3.01.2018 (36th ITMC)	Rajan Sharma, Y.S. Rajput and Amit Kumar Barui Dairy Chemistry
78.	Strip based test for detection for maltodextrin in milk	3.01.2018 (36th ITMC)	Rajan Sharma, Y.S. Rajput, Bimlesh Mann and Panchal Bhaveshkumar R Dairy Chemistry
79.	Probiotic bacterial culture for preparation of fermented milk products for healthy gut	3.01.2018 (36th ITMC)	Rajiv Kapila, SumanKapila Animal Biochemistry
80.	Novel RNA isolation method from Liver tissue of recalcitrant animal species to obtain NGS (Next Generation sequencing) quality	3.01.2018 (36th ITMC)	Suneel Kumar Onteru, Dheer Singh, Davinder Sharma, NareshGolla Animal Biochemistry
81.	Novel RNA isolation method from adipose tissue of recalcitrant animal species to obtain NGS (Next Generation sequencing) quality	3.01.2018 (36th ITMC)	Suneel Kumar Onteru, Dheer Singh, Davinder Sharma, NareshGolla Animal Biochemistry
82.	Technology of Reduced Peda	3.01.2018 (36th ITMC)	GunvantsinhRathod, KaushikKhamrui Dairy Technology
83.	Technology for preparation of Chocolate *BhapaDoi*	3.01.2018 (36th ITMC)	KaushikKhamrui and Writdhama Prasad Dairy Technology

84.	Strip based test for detection of neutralizers in milk	8.03.2018 (38th ITMC)	Rajan Sharma, PriyaeBrathGautam, Y.S. Rajput and Bimlesh Mann Dairy Chemistry
85.	Strip based test for detection of urea in milk	8.03.2018 (38th ITMC)	Rajan Sharma, PriyaeBrathGautam, Y.S. Rajput and Bimlesh MannDairy Chemistry
86.	Strip based test for detection of glucose	8.03.2018 (38th ITMC)	Rajan Sharma, Y.S. Rajput, Bimlesh Mann and Panchal Bhaveshkumar R Dairy Chemistry
87.	Strip based test for detection of sucrose in milk	8.03.2018 (38th ITMC)	Rajan Sharma, PriyaeBrathGautam, Y.S. Rajput and Bimlesh Mann
88.	Probiotic Lactobacillus strain LbS2 (MTCC 5953)	1.05.2018 (39th ITMC)	Sunita Grover, Rashmi, H.M., and V.K. Batish Dairy Microbiology
89.	Probiotic fermented mango whey drink	1.05.2018 (39th ITMC)	ShilpaVij Dairy Microbiology
90.	Microprocessor based automated instrumentation system for pneumatic paneer hoop cum-press unit	1.05.2018 (39th ITMC)	Chitranayak, M.; Manjunatha, F.; Magdaline EE, and K. Jayraj Rao Dairy Engineering
91.	Equipment for mechanized production of rice based kheer	1.05.2018 (39th ITMC)	P.S. Minz, Chitranayak, and P.N. Raju Dairy Engineering
92.	Technology for the Preparation of Encapsulated Curcumin for its Applications in Dairy foods	1.05.2018 (39th ITMC)	Bimlesh Mann, Rajan Sharma, Rajesh Kumar, Richa Singh and Ramesh Pothuraju Dairy Chemistry
93.	Technology for the Preparation of Caseinophosphpeptides Enriched Milk Protein Product	1.05.2018 (39th ITMC)	Bimlesh Mann, Rajan Sharma, Rajesh Kumar and Prabin Sarkar Dairy Chemistry
94.	Spore based kit for detection of antibiotic residues in milk	25.09.2018 (40th ITMC)	Naresh Kumar, A. Khan, S. Arora, Raghu H.V., M. Balhara, P.K. Sharma and S. Shaikh Dairy Microbiology

95.	Paper strip for detection of antibiotic residues in milk at dairy farm	25.09.2018 (40th ITMC)	Naresh Kumar, Anand S.P., Shukla R., Suman, P.K. Sharma and Raghu H.V. Dairy Microbiology
96.	Paper strip for rapid detection of pesticide residues in milk	25.09.2018 (40th ITMC)	Naresh Kumar, N. Tehri, R. Gopaul, P.K. Sharma, Morab S. and Raghu H.V. Dairy Microbiology
97.	Rapid detection of Listeria monocytogenes in milk	25.09.2018 (40th ITMC)	Naresh Kumar, M. Balhara, G. Thakur, Raghu H.V., V.K. Singh and Kouser S. Dairy Microbiology
98.	Rapid test for detection of E. coli in milk	25.09.2018 (40th ITMC)	Naresh Kumar, Ramakant L., Avinash, Bhawna A., Raghu H.V., M. Balhara, S. Kadyan and V. Kumar Dairy Microbiology
99.	Rapid test for detection of coliform in milk	25.09.2018 (40th ITMC)	NareshKumar , Ramakant L.,Avinash, Bhawna A., Raghu H.V. M. Balhara, S. Kadyan and V. Kumar Dairy Microbiology
100.	Two stage enzyme assay for detection of enterococci in milk	25.09.2018 (40th ITMC)	Naresh Kumar, G. Kaur, G. Thakur, Raghu H.V., N.A. Singh, N. Raghav and V.K. Singh Dairy Microbiology
101.	Strip based test for detection of hydrogen peroxide in milk	25.09.2018 (40th ITMC)	Rajan Sharma, Y.S. Rajput, Bimlesh Mann and PriyaeBrathGautam Dairy Chemistry
102.	Indigenous Probiotic *Lactobacillus* strain LrhS3	25.09.2018 (40th ITMC)	Rashmi, H.M., Sunita Grover and V.K. Batish Dairy Microbiology
103.	Indigenous Probiotic *Lactobacillus* strain Lre120	25.09.2018 (40th ITMC)	Sunita Grover, Rashmi H.M. and V.K. Batish Dairy Microbiology
104.	Indigenous Probiotic *Lactobacillus* strain LbS4	25.09.2018 (40th ITMC)	Sunita Grover, Rashmi H.M. and V.K. Batish Dairy Microbiology
105.	A strip for detection of sodium chloride in milk	25.09.2018 (40th ITMC)	Rajan Sharma, Y.S. Rajput and Bimlesh Mann Dairy Chemistry

Technologies developed- 2019 (18)			
106.	Process Technology for PaladaPayasam Mix Preparation by Dry Crystallization method in a Mechanical Unit	01.01.2019 (41st ITMC)	MenonRekhaRavindra, B SurendraNath, Gajanan P Deshmukh SRS , Benguluru
107.	"Indigenous Probiotic *Lactobacillus rhamnosus*NCDC 610"	01.01.2019 (41st ITMC)	S.K. Tomar, PradipVishuBehare, SandipBasu, AK Singh Dairy Microbiology
108.	"Cholesterol binding indigenous Probiotic *Lactobacillus fermentum* NCDC 400 strain"	01.01.2019 (41st ITMC)	PradipVishu Behare, MrignyaniKolhekar, SK Tomar, A.K. Mohanty Dairy Microbiology
109.	Food colour measurement system Color Desk D1	01.01.2019 (41st ITMC)	P.S. Minz, I.K. Sawhney, Chitranayak Sinha, A.K. Dodeja Dairy Engineering
110.	Food colour measurement system Color Desk D1	01.01.2019 (41st ITMC)	VairatAmitaDinkar, Chitranayak Sinha, P.S. Minz, KJ Dabas, KhushbuKumari Dairy Engineering
111.	Food colour measurement system Color Desk D1	01.01.2019 (41st ITMC)	Chitranayak Sinha, KJ Dabas, P.S. Minz, VairatAmitaDinkar, KhushbuKumari Dairy Engineering
112.	Development of automatic endo-exo thermal unit for Dahi	01.01.2019 (41st ITMC)	Ganga SahayMeena, AshwajitTejramPatil, NeelamUpadhyay, YogeshKhetra, Sanket G Borad, Ashish Kumar Singh Dairy Technology
113.	Production of Milk Protein Concentrate 60 (MPC60), a high protein low lactose powder from buffalo milk.	01.01.2019 (41st ITMC)	Ganga SahayMeena, Ashish Kumar Singh, Vijay Kumar Gupta Dairy Technology
114.	Process Optimization of Cow Milk Protein Concentrate 70 (MPC70) With Improved Functional Properties.	01.01.2019 (41st ITMC)	Ganga SahayMeena, Gaurav, YogeshKhetra, Raghu H V Dairy Technology
115.	Technology of Long Life Kheer Mohan	22.11.2019 (43rd ITMC)	Shaik Abdul Hussain, Suchismita Roy, Writdhama

			Prasad, YogeshKhetra Dairy Technology
116.	Technology of fruit yoghurt	22.11.2019 (43rdITMC)	BC Ghosh, Satish Kumar, Monika Sharma, Devaraja HC, K. Jayaraj Rao SRS , Benguluru
117.	Spray dried milk-malted millet beverage mix	22.11.2019 (43rdITMC)	P HeartwinAmaladhas, F, MagdalineEljeeva Emerald, B SrendraNath SRS , Benguluru
118.	Hybrid baking oven	22.11.2019 (43rdITMC)	F MagdalineEljeeva Emerald, P HeartwinAmaladhas, M. Manjunatha, BC Ghosh SRS , Benguluru
119.	Technology for Omega-3 fatty acid fortified curd and flavoured milk	22.11.2019 (43rdITMC)	Monika Sharma, Devaraja HC, PramodBhivasenTambade, BC Ghosh, LaxmanaNaik N SRS , Benguluru
120.	Green technology for texture modification of ghee	22.11.2019 (43rdITMC)	B SurendraNath, LaxmanaNaik SRS , Benguluru
121.	Functional butter with hypocholesterolemic attributes	22.11.2019 (43rdITMC)	Devaraja HC, KaushikKhamrui, Satish Kumar, SumanKapila, Rajan Sharma SRS , Benguluru
122.	Probiotic bacterial culture to augment neonatal health of calves	22.11.2019 (43rdITMC)	Sachin Kumar, Amrish Kumar Tyagi, Rashmi, NitinTyagi Animal Nutrition
123.	DNA based method for differentiation of cow buffalo, sheep,goat and camel Milk	22.11.2019 (43rdITMC)	Sachinandan De , Sushil Kumar and DevikaGoutam ABTC
Technologies developed- 2020 (29)			
124.	DNA based method for differentiation of cow, buffalo sheep,goat and pig meat	7.02.2020 (44th ITMC)	Sachinandan De , Sushil Kumar and DevikaGoutam ABTC
125.	Technology for Omega-3 rich mixed fat table spread.	7.02.2020 (44th ITMC)	Neelam Upadhyay, Kuldeep Kamble and A K Singh Dairy Technology
126.	A PCR based method for differentiating A1 &A2 Milk	7.02.2020 (44th ITMC)	Sachinandan De, Kailash Jaiswal ABTC
127.	Technology for spreadable butter fortified with vegetarian source of omega-3 fatty acid	7.02.2020 (44th ITMC)	Monika Sharma, Dairy Technology Section, SRS, ICAR-NDRI,

			SRS , Benguluru
128.	Spore based strip for rapid detection of β-Lactum group in milk	20.06.2020 (45th ITMC)	Naresh Kumar and Prashant Goel Dairy Microbiology
129.	Technology of Extended Shelf-life sorghum lassi	20.06.2020 (45th ITMC)	Shaik Abdul Hussain and F.C. Garg Dairy Microbiology
130.	Lipid and Water soluble yellow natural colouring ingredients from bio-waste	20.06.2020 (45th ITMC)	Neelam Upadhyay, A. K. Singh and others Dairy Technology
131.	Technology for the preparation of encapsulated flaxseed oil for its application in foods	20.06.2020 (45th ITMC)	Neelam Upadhyay, A. K. Singh and others Dairy Technology
132.	Production of buffalo milk-based milk protein concentrate 60 (MPC 60) powder with improved solubility	20.06.2020 (45th ITMC)	Ganga Sahay Meena, NeelamUpadhyay and others Dairy Technology
133.	Buffalo Saliva Scope, an estrus identification kit	20.06.2020 (45th ITMC)	Suneel Kumar Onteru, Dheer Singh and others Animal Biochemistry
134.	Electrospun Smart Oxygen Indicating Tag	20.06.2020 (45th ITMC)	NarenderRaju and others Dairy Technology
135.	Technology for preparation of milk based spray dried Nanoencapsulatedcurcumin formulation.	11.09.2020 (46th ITMC)	Bimlesh Mann, AnkitaHooda, Rajan Sharma, Rajesh Kumar and Richa Singh Dairy Chemistry
136.	Additive combination for improvement in quality of sugarcane tops silage	11.09.2020 (46th ITMC)	Nitin Tyagi, Digvijat Singh, Nutan Chauhan, NeelamKumari, Pradip Vishnu Behare, Sachin Kumar, AK Tyagi Animal Nutrition
137.	Technology of Ricotta cheese from buffalo milk	11.09.2020 (46th ITMC)	SangitaGanguly, Bhagwat Sameer Kisan, YogeshKhetra, LathaSabikhi and PN Raju Dairy Technology
138.	Technology of probiotic Ricotta cheese from buffalo milk	11.09.2020 (46th ITMC)	SangitaGanguly, YogeshKhetra, LathaSabikhi and PN Raju Dairy Technology
139.	Technology for preparation of cow milk protein powder based Sandesh	11.09.2020 (46th ITMC)	Sumit Arora, Amrita S., Vivek Sharma, HemantGawande, Rita, AK Singh
140.	Preparation of milk kefir/whey kefir drink	17-18,December 2020 (47thITMC)	B C Ghosh, M H Sathish Kumar, Sonanki Mitra and Abila
141.	Technology for the preparation of spray dried whey protein concentrate-iron	17-18,December	Kamal Gandhi, Indrajeet Singh Banjare and Sumit Arora

	(WPC-Fe) complex fortified biscuits.	2020 (47th ITMC)	
142.	Strip based technology for Early Detection of Sub-Clinical and Clinical Mastitis.	17-18,December 2020 (47th ITMC)	Naresh Kumar, KirtiDua and Bhawani N
143.	Spore based technology for rapid detection of antibiotic groups in milk and Aqua-products.	17-18,December 2020 (47th ITMC)	Naresh Kumar, Ramya S, S Shaikh and Raghu, H V
144.	assay-based method for rapid detection of presence of buffalo milk in cow milk.	17-18,December 2020 (47th ITMC)	Rajan Sharma, ArchanaVerma, Nitin Shinde, Kamal Gandhi and Bimlesh Mann
145.	Trace mineral fortified Anionic mineral mixture for advanced pregnant cattle and buffaloes.	17-18,December 2020 (47th ITMC)	Venna Mani, Harjit Kaur, A K Tyagi and Chander Datt
146.	Native vitamin B_{12} producing *Lactobacillus reuteri*NCDC 958/VTCC610B for production of vitamin B_{12} bio-fortified soy curd.	17-18,December 2020 (47th ITMC)	S K Tomar, ManoramaKumari, Harshil Kumar Patel and Pradip V. Behare
147.	High Immunoglobulin colostrum powder.	17-18,December 2020 (47th ITMC)	A K Singh, SanketBorad, LathaSabikhi, P N Raju, Sudhir Kumar Tomar and Sumit Arora
148.	Goat milk-based Spiced cheese rolls.	17-18,December 2020 (47th ITMC)	A K Singh, Atanu Das, LathaSabikhi, P N Raju, Sumit Arora, SanketBorad and Heena Sharma
149.	Goat milk based probiotic yoghurt.	17-18,December 2020 (47th ITMC)	A K Singh, Dharani Kumar M, LathaSabikhi, P N Raju, Sumit Arora, Sudhir Kumar Tomar, Heena Sharma and Gaurav Kumar Deshwal
150.	*Giloy*-goat milk beverage	17-18,December 2020 (47th ITMC)	Heena Sharma, A K Singh, SanketBorad, Gaurav Kumar Deshwal and SunitaMeena
151.	Indigenous probiotic strain *Lactobacillus plantarum*Lp91 (MTCC 5690)	17-18,December 2020 (47th ITMC)	Sunita Grover, V K Batish and Rashmi H M
Technologies developed- 2021 (19)			
152.	"Paper-based strip for the rapid detection of formalin in milk".	12.05.2021 (50th ITMC)	Kamal Gandhi, FarinSayyad, Rajan Sharma,

			PriyaeBrathGautam, Harshitha CG). Dairy Chemistry Division, ICARNDRI, Karnal.
153.	"Technology for the preparation of low lactose Khoa".	12.05.2021 (50th ITMC)	Raman Seth, Ankur Aggarwal, Kamal Gandhi. Dairy Chemistry Division, ICAR-NDRI, Karnal
154.	"PCR ready Template DNA preparation by Quick Bacterial Lysis" solution.	12.05.2021 (50th ITMC)	Sachinandan De, Rajib Deb, Parul Chadhary). Animal Biotechnology Centre, ICAR-NDRI, Karnal.
155.	"Cation Based mineral supplement for lactating dairy animals".	12.05.2021 (50th ITMC)	Veena Mani, Chander Datt, Goutam Mondal, Shimla Yadav). Animal Nutrition Division, ICAR-NDRI, Karnal.
156.	"PANI-PEC paper strip sensor for the detection of E. coli in milk."	12.05.2021 (50th ITMC)	Raghu HV, Anjali MK, Bharat G, Naresh Kumar). Dairy Microbiology Division, ICAR-NDRI,
157.	"PANI-PEC paper strip sensor for the detection of total bacterial count in milk."	12.05.2021 (50th ITMC)	Raghu HV, Mohit Singh, Prajapathi M, Naresh Kumar). Dairy Microbiology Division, ICAR-NDRI,
158.	Technology for the preparation of Indian artisanal cheese".	4.10.2021 (52nd ITMC)	Latha Sabikhi, Pravin Bhongle, Jeetmal Meena, Sathish Kumar MH and Yogesh Khetra). Dairy Technology Division, ICAR-NDRI, Karnal.
159.	Paper^{Staph} assay for visual detection on staphylococcus species in bovine milk".	4.10.2021 (52nd ITMC)	Sachinandan De, Rajib Deb, Prasanna Pal and Ashutosh Ludri. Animal Biotechnology Centre, ICAR-NDRI, Karnal.
160.	"Autochthonous calves-origin probiotic *Lactobacillus reuteri* BF-E7"	4.10.2021 (52nd ITMC)	Sachin Kumar, A.K. Tyagi, Nitin Tyagi, Rashmi, Anukarna Singh and Vinay, V.V.). Animal Nutrition Division, ICAR-NDRI, Karnal.
161.	"Technology for preparation of protein rich cheese squeeze."	29.12.2021 (53rd ITMC)	Devaraja, HC., K. Jayaraj Rao, Sathish Kumar M.H, Monika Sharma and Manoj Kumar C.T.) Dairy Technology Section, ICAR-NDRI, SRS Bengaluru
162.	"Technology for preparation of Milk-millet based protein rich dairy dip"	29.12.2021 (53rd ITMC)	Devaraja, HC., K. Jayaraj Rao, Monika Sharma, Sathish Kumar M.H. and Gopal Gadewar) Dairy Technology Section, ICAR-NDRI, SRS Bengaluru
163.	"Technology for preparation of Milk-millet based composite dairy spread"	29.12.2021 (53rd ITMC)	Devaraja, HC., K. ayaraj Rao, Monika Sharma, F. Magdaline Eljeeva Emerald and Omkar) Dairy Technology Section,

			ICAR-NDRI, SRS Bengaluru.
164.	.“Cow-ghee enriched with natural polyphenol antioxidants”	29.12.2021 (53rd ITMC)	Laxmana Naik, Shivli Jha, Priyanka Singh Rao, K. Jayaraj Rao, Sathish Kumar M. H., Menon Rekha Ravindra and F. Magdaline Eljeeva Emerald and Omkar) Dairy Chemistry Section, ICAR-NDRI, SRS Bengaluru.
165.	“Technology for production of reduced sugar *burfi* with natural sweeteners”	29.12.2021 (53rd ITMC)	Sathish Kumar M. H., Amal Biswas, K. Jayaraj Rao, Devaraja, HC and Laxmana Naik) Dairy Chemistry Section, ICAR-NDRI, SRS Bengaluru.
166.	“Technology of ghee residues incorporated energy bar”	29.12.2021 (53rd ITMC)	Monika Sharma, Amanchi A Sangma, K. Jayaraj Rao, Menon Rekha Ravindra and Laxmana Naik) Dairy Technology Section, ICAR-NDRI, SRS Bengaluru.
167.	“Process technology for dry -crystalized gasagase *payasam mix*	29.12.2021 (53rd ITMC)	Menon Rekha Ravindra, Monika Sharma and Devaraja, HC) Dairy Technology Section, ICAR-NDRI, SRS Bengaluru.
168.	“Process technology for dry-crystalized *kheer mix*”	29.12.2021 (53rd ITMC)	Menon Rekha Ravindra, Monika Sharma and Devaraja, HC) Dairy Technology Section, ICAR-NDRI, SRS Bengaluru.
169.	“Process technology for dry -crystalized *phirni mix*”	29.12.2021 (53rd ITMC)	Menon Rekha Ravindra, Monika Sharma and Devaraja, HC) Dairy Technology Section, ICAR-NDRI, SRS Bengaluru.
170.	“A process for the separation of glycomacropeptide and other protein fractions from cheese whey”	29.12.2021 (53rd ITMC)	Neelima Sharma, Rajan Sharma and Kamal Gandhi), Dairy Chemistry Division.
Technologies developed- 2022 (19)			
171.	“Dual technique Rumen protected B-complex enzymes”	16.03.2022 (54th ITMC)	Bandla Srinivas and R. Dhinesh Kumar, ICAR-SRS-NDRI, Bengaluru.
172.	“Area-specific mineral mixture (ALMIN-ERS) for livestock in the lower Genetic region of West Bengal”.	16.03.2022(54th ITMC)	Ajoy Mandal, A. Chatterjee and M. Karunakaran, ICAR-ERS-NDRI, Kalyani.

173.	"Kid life-milk supplement to enhance the survivability and growth of kids".	16.03.2022 (54th ITMC)	Ajoy Mandal, M. Karunakaran and T.K. Dutta, ICAR-ERS-NDRI, Kalyani.
174.	"Extender for preservation of Black Bengal buck semen".	16.03.2022 (54th ITMC)	M. Arunakaran, Ajoy Mandal and Subrata Kumar Das, ICAR-ERS-NDRI, Kalyani.
175.	"Post-partum reproduction augmenting polyherbal mixture for dairy cattle and buffaloes"	16.03.2022 (54th ITMC)	A. Kumaresan, Phule Japheth, P.S. Oberoi and A. Manimaran LPM section, ICAR-SRS-NDRI, Bengaluru
176.	"Encapsulation of DPP-IV inhibitory peptides in double emulsion matrix"	16.03.2022 (54th ITMC)	Shaik Abdul Hussain, Swapnil Ramrao Patange, Latha Sabikhi, Prashant Shelke, Yogesh Khetra, Sunita Meena and Sathish Kumar, M.H.), DT Division, ICAR-NDRI, Karnal.
177.	"Low-Cost natural Chromogenic media to distinguish between *E. Coli* and *Klebsiella* Species"	16.03.2022 (54th ITMC)	Sachinandan De, Parul Chaudhary, Rajib Deb and Manisha Behera ABTC, ICAR-NDRI
178.	"Sperm function-based bull fertility assessment technology" (Inventor: A. Kumaresan), LPM Section, ICAR-SRS-NDRI, Bengaluru.	16.03.2022 (54th ITMC)	A.Kumaresan LPM Section, ICAR-SRS-NDRI, Bengaluru.
179.	"Technology for reduced energy consumption during clarification step of Ghee preparation"	16.03.2022 (54th ITMC)	Writdhama G Prasad, Shubham Kumbhare, Kaushik Khamrui and Shaik Abdul Hussain) DT Division, ICAR-NDRI
180.	"A process for preparation of milk protein fortified eggless muffins"	16.03.2022 (54th ITMC)	Kaushik Khamrui, Rishi Puri and Writdhama G Prasad DT Division, ICAR-NDRI.
181.	"Rapid AST assay for detection of EBSL, Amp-C β-Lactamase and Carbapenem resistance in *E. coli"*	16.03.2022 (54th ITMC)	Naresh Kumar, Avinash Jaswal and Raghu H.V.) DM Division, ICAR-NDRI
182.	Technology of low-fat Shrikhand by using exopolysaccharides (EPS) producing lactic cultures"	16.03.2022 (54th ITMC)	Pradip Vishnu Behare, Harisha M. R., S. K. Tomar and Sanket Borad DM Division, ICAR-NDRI
183.	Technology of making universal control	06.08.2022 (55th ITMC)	Y.S. Rajput, Dhiraj Nanda, &

	line in lateral flow assay		Rajan Sharma
184.	Ghee –Residue Powder and Process of Preparing the same	06.08.2022 (55th ITMC)	Ganga Sahay Meena, Akash Gill, Yogesh Khetra, Ashish Kumar Singh, Sumit Arora
185.	An energy efficient method for Ghee flavour simulation in butteroil	22.12.2022 56th ITMC	Writdhama G Prasad, PiyushPoharkar, KaushikKhamurai, Shaik Abdul Hussain, Ankit Deep
186.	On-Package Smart Indicator for Khoa	22.12.2022 56th ITMC	NarenderRajuPanjagari, Rakesh Kumar Raman, Gautam Kumar, Ashish Kumar Singh
187.	On-Package Smart Indicator for Sandesh, A Chhana-based Confection	22.12.2022 56th ITMC	NarenderRajuPanjagari, Mr.Karpurapu Uma, Dr.SangitaGanguly, Sr. Ashish Kumar Singh
188.	On-Package Smart Indicator for Nutrimix	22.12.2022 56th ITMC	NarenderRajuPanjagari, Mr.Lal Chand Sharma, Dr. Ashish Kumar Singh
189.	Ghee residue incorporated chocolate dairy spread.	22.12.2022 56th ITMC	Monika Sharma, Abhishek Singh Kanwar, Devaraja HC, MenonRekhaRavindra
Technologies developed- 2023 (04)			
193	BUPAG2 Based immunodiagnostic Elisa Kit for the quantitative estimation of PAG2 Isoform in cows and Buffaloes	07.07.2023 58th ITMC	Dr. A.K. Mohanty, Dr. Sudarshan Kumar, Dr. Sushil Kumar, Dr. Rubina Kumari Baithalu, Dr. T.K. Mohanty, Dr. Munna Yadav, Shweta Yadav
194	BuPAG-2 based immunodiagnostic methods and Kit (LFIA) for the early detection of pregnancy in cows and Buffaloes	07.07.2023 58th ITMC	Dr. A.K. Mohanty, Dr. Sudarshan Kumar, Dr. Sushil Kumar, Dr. Rubina Kumari Baithalu, Dr. T.K. Mohanty, Dr. Munna Yadav, Shweta Yadav
195	Additive combination for, improving quality and aerobic stability of Maize Silage	07.07.2023 58th ITMC	Dr. Nitin Tyagi, Neelam Kumari, Nutan chauhan, Pradeep Vishnu Behare, Sachin Kumar
196	Detection of sorbitol in milk using paper based discs	07.07.2023 58th ITMC	Dr. Vivek Sharma, Ms. Shailja Shinde, Dr. Sumit Arora, Dr. Priyanka Singh Rao, Dr. Richa Singh, Ms. Karra Madhavi Latha

Technologies developed- 2024 (03)			
197	Innovative Technology for Producing Antimicrobial Coagulant Formulation to Prolong the Shelf-Life of Paneer	02-01-2024 60^{th} ITMC	Dr. Pradip V. Behare, Rallapalli Vembar Rajanikar, Sudhir Kumar Tomar, Diwas Pradhan, Rajan Sharma, Sanket Borad
198	Technology on production of stable direct Vat Set liquid starter culture blend for fermented milk	16-05-2024 61^{st} ITMC	Dr. Pradip V. Behare, Mr. Reshab Majumdar, Dr. Diwas Pradhan, Dr. P. Narender Raju
199	Fast-acidifying streptococcus thermophilus NCDC 960 strain for production of fermented milk	16-05-2024 61^{st} ITMC	Dr. Pradip V. Behare, Dr. Manorama, Dr. Anil Kumar Puniya, Dr. Shaik Abdul Hussain