

STAFF HANDBOOK

Name / Nama	Prof. Dr. drh. Ratmawati Malaka, M.Agr.Sc.
Position / Bidang keilmuan	Dairy Processing Biotechnology
Academic career / Riwayat Pendidikan	S1 - Bachelor and of Veterinary Medicine, Faculty of Animal Husbandry - IPB University (1983-1987) S2 - Master of Animal Product Technology, Faculty of Biological Resources Science, Miyazaki University Japan (1995-1997) S3 - Doctor of Animal Science, Graduate School, Hasanuddin University (2002-2005)
Employment / Pekerjaan	Lecturer at Faculty of Animal Husbandry, Hasanuddin University
Research and development projects over the last 5 years / Riwayat penelitian 5 tahun terakhir	• Physicochemical Studies and Antioxidant Activity of Pasteurized Milk with the Addition of Matoa (<i>Pometia pinnata</i>) Leaf Extract • Study of functional properties and physicochemical quality of pasteurized milk with the addition of matoa leaf extract and alginate • Development of Ripening Dangke Cheese (Dancees) for Product Downstreaming in Realizing National Food Independence • Addition of cemba leaf powder as a source of antimicrobial and antioxidant in meatball products • Phenotypic Characterization and Gene Tracing of Polled Bali Cattle as Germplasm to Support National Seedling Production Growth Controlling Genes of Polled Balinese Cattle as Germplasm to Support National Seedling Production • Development of Ripening Dangke Cheese (Dancees) for Product Downstreaming in Realizing National Food Independence

	● Development of Chicken Meatball Formulation through substitution of tapioca flour with purple sweet potato flour as a source of antioxidants and natural coloring ● Scaling Up Prebiotic and Anti-cancer Cheese from Dangke as a Local Product Toward the Export Market ● Genetic Diversity Analysis of Polled Bali Cattle as South Sulawesi's Leading Livestock Using Polymerase Chain Reaction Random Amplified Polymorphic DNA (PCR- RAPD) Study of Functional Kefir Characteristics that are Halal by Optimizing Fermentation Duration and Heating Time RAPD) ● Study of Halal Functional Kefir Characteristics by Optimizing Fermentation Duration and Heating ● Innovation in functional cheese making using edible film coating made from Dangke whey combined with konjac flour and carrageenan ● Risk Analysis and Critical Point of Aflatoxin Producing Fungus Contamination (AFM1) in Fresh Milk and Dangke Cheese in Enrekang Regency ● Exploration of Staphylococcus aureus in Critical Control Points of Consumer Chicken Egg Contamination ● Strengthening Campus Eco-tourism for commercialization of Functional dairy products ● Characteristics of Dangke Cheese with inoculation of Lactococcus lactis subsp. lactis starter culture 0086, coating and ripening ● Physicochemical Studies of Biodegradable Edible Film as Food Coating Material with the Addition of Red Ginger Juice (Zingiber Officinale Var. rubrum) ● Innovation in utilization of starter bacteria fermented milk culture rosy strain producing exopolysaccharide (eps) to produce functional cheese ● Quality and Validity Test of Sexed Polled Balinese Cow Semen Based on Molecular Verification
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	● Study of Exopolysaccharide from Starter Bacteria Fermented Milk Culture isolated from Dangke and its Potential as Antitumor ● Risk Analysis and Critical Point of Aflatoxin Producing Fungus (AFM1) Contamination in Fresh Milk and Dangke Cheese in Enrekang Regency ● Standardization and Characterization of Dairy Product Suspensions from East Nusa Tenggara
Industry collaborations over the last 5 years / Kolaborasi dengan industry 5 tahun terakhir	BRIN Local Functional Feed Development
Patents and proprietary rights / Paten dan HKI	1. Sarabba Milk Making Process and Products 2. Production Process of Ripening Dangke Cheese with Inoculation of Lactic Acid Bacteria Culture Starter 3. Production Process and Formulation of Ripening and Coating Cheese with Beewax 4. Village of People's Cattle Breeding Center 5. Evaluation of physico-chemical properties and antioxidant activity of Bali Beef Meatballs added Cemba (<i>Albizia Lebbeckoides</i> [DC.] Benth) 6. Impact of Implementation of Partner Village Development Program in Local Cattle Breeding Center in Enrekang Regency 7. Introduction to Dairy Technology 8. Ethics of Qurban Animals 9. Dangke: Traditional Cheese of Enrekang, South Sulawesi 10. Casein Separation Process with Acid and Enzyme Combination
Important publications over the last 5 years / Publikasi penting 5 tahun terakhir	● Total bacteria and pH changes of matoa leaf-pasteurized milk in refrigerator storage ● Assessment of exopolysaccharide production by <i>Lactobacillus delbrueckii</i> subsp. <i>bulgaricus</i> ropy strain in different substrate media

	● Effect of <i>Lactococcus lactis</i> inoculation on characteristics and microstructure of dangke cheese with different ripening temperature and incubation time ● Supplementation of matoa (<i>Pometia pinnata</i>) leaf extract and alginate suppressed the growth of <i>Staphylococcus aureus</i> and <i>Escherichia coli</i> in pasteurized milk ● Prevalence of <i>Brucella abortus</i> antibody in serum of Bali cattle in South Sulawesi ● Matoa pasteurized milk quality subjected to the different levels of alginate ● Physicochemical quality of fermented milk with additional red dragon fruit (<i>Hylocereus polyrhizus</i>) skin ● Titratable acidity and pH changes of pasteurized milk by addition of Roselle flower extract in the refrigerator storage ● A review of Encapsulated liquid smoke ● Effect of probiotic <i>Lactobacillus paracasei</i> on hematology and relative weight of lymphoid organs of broiler ● The body condition and reproduction performances of Bali cattle cows through the improved feeding in the intensive management system ● Brightness, elongation and thickness of edible film with caseinate sodium using a type of plasticizer ● Effectiveness of <i>Lactobacillus plantarum</i> 1UHCC bacteria in partial hydrolysis of goat bone in producing gelatin ● Sanitary hygiene implementation at <i>Salmonella</i> sp. critical control points in layer farms ● The use of different concentrations of curcuma (<i>Curcuma xanthorrhiza</i> Roxb) on the chemical quality of Bedak Lotong kefir face mask with oven drying ● Business prospects of pasteurized milk diversification in the new normal era post covid-19 through the Campus Intellectual Product Unit Development Program (PPUPIK) with livestock edu-agrotourism system ● Determination of the expiration time of Dangke ripening cheese through Physico- chemical and microbiology analysis ● Bacterial exopolysaccharides and their roles for human life ● Organoleptic quality of pasteurization milk by matoa (<i>Pometia pinnata</i>) leaf extract supplementation ● The Effect of zonation in closed house broiler on the <i>Escherichia coli</i> count and ammonia concentration ● Evaluation of Physico-chemical properties and antioxidant activity of Bali beef meatballs added Cemba (<i>Albizia lebbeckoides</i> (DC) Benth)
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	● Liquid smoke production quality from coconut shell and rise husk ● Physico-chemical properties of chicken nuggets by addition gelatin from the skin and bones of goat with pretreatment <i>L. plantarum</i> and acetic acid ● Physical characteristics of ice cream with the addition of tangerines ● Study of solvent temperature on physical quality of yogurt green tea powder ● Detection of coliform bacteria, total plate count and pH value in chicken eggs from Maros traditional market ● Types of Acid and Drying Method Differently Affect the Chemical Profile of Sodium Caseinate ● Effects of drying methods and acidic strength on physicochemical properties of potassium Caseinate ● Effects of Bacterial Exopolysaccharide on Rheological Properties of acid milk curd and its correlates ● Primate malaria: An emerging challenge of zoonotic malaria in Indonesia ● Quality and storage time of traditional dangke cheese inoculated with indigenous lactic acid bacteria isolated from Enrekang District, South Sulawesi, Indonesia ● Effects of the Encapsulation of Liquid Smoke on Growth Performance, Intestinal Profile, and Microbial Profile of Broiler Chickens ● Effect of Soaking <i>Lactobacillus Plantarum</i> and Acetic Acid (CH_3COOH 0.5 M) on Moisture Content, Ash, and Thermal Stability of Goat Feet Gelatin at Different Ages ● Investigating the effects of fermentation time on physicochemical properties of commercial liquid milk kefir ● Prospect analysis of dances cheese as a high protein food source in the new era post Covid 19 ● Substitution of Tapioca Flour with Purple Yam Flour on Chicken Meatball Physical Characteristics and Antioxidant Activity ● Gel Strength, Folding Test and Sensory Evaluation of Chicken Meatballs by Substitution of Tapioca Flour with Purple Sweet Potato Flour ● Physical properties and organoleptic test of reconstituted Yogurt subjected to the different levels of green tea addition ● Characteristics of compost mixed goat feces with layers using vegetable waste as a source of decomposers ● Consistency and growth of bacteria in pasteurized milk by addition of sappan wood (<i>Caesalpinia sappan</i> L.) during storage
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	● Effect of casein levels on solubility time and antioxidant activity of edible film ● Physical properties of ice cream by dragon fruits addition with a different egg type emulsifier ● Solubility and sensory evaluation of ginger milk powder at different solvent temperatures ● Detection of Escherichia coli bacteria in meat grinding in the traditional market of polewali mandar district ● Total plate count, Staphylococcus aureus, and pH of commercial beef meatball in Makassar ● Effect of lanthanide ions stress on lactic acid fermentation performance of Streptococcus thermophilus during milk processing ● Total flavonoid and organoleptic quality of fermented milk with the addition of red dragon fruit (Hylocereus polyrhizus) peel ● Halophilic bacteria number and morphology in commercial salted eggs in Makassar ● The effect of addition of red dragon fruit (Hylocereus polyrhizus) with different levels on chemical properties of ice cream ● Diversity of <i>Anopheles</i> species and zoonotic malaria vector of the Buton Utara Wildlife Sanctuary, Southeast Sulawesi, Indonesia ● Prevalence of Plasmodium sp. infection on endemic primates in the Buton Utara Wildlife Sanctuary, Southeast Sulawesi, Indonesia ● Effect of Dangke consumption on body weight, blood glucose, and total cholesterol in rats subjected to high-fat and fructose diet ● Evaluation of the potential of matoa (Pometia pinnata) leaf extract as an antioxidant activity in pasteurized milk ● Analysis of meat microbial contamination on beef supply chain in Makassar city ● Antioxidant activity, organoleptic quality of Dangke nuggets with the addition of corn flour (Zea mays L.) ● Evaluation dangke cheese processing by edible film coating made whey combined with konjac flour ● Staphylococcus aureus as a foodborne pathogen in eggs and egg products in Indonesia: A review ● The Critical Control Point of Aspergillus spp. Aflatoxin Contamination in Smallholder Dairy Farms ● Exploration of Gelatin from Livestock and Its Application in the Pharmaceutical and Health Fields: A Review ● Physicochemical Properties of Dangke-cheese by Different Temperature Processing and Papaya-latex as Coagulant
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	● The Effect of Herbal Spray Extract of Moringa Leaves (<i>Moringa oleifera</i> Lam) and Betel Leaves (<i>Piper betle</i> Linn) to Wounds in Dairy Cattle ● Risk analysis of critical control points of <i>Staphylococcus aureus</i> in layer farms and chicken egg distributors ● Kajian Potensi Stabilizer Kombinasi Tepung Porang dan Tepung Jagung sebagai aktivitas antioksidan dan Karakteristik Fisikokimia es Krim
Activities in specialist bodies over the last 5 years / Aktifitas berkaitan dengan bidang keahlian dalam 5 tahun terakhir (contoh: menjadi narasumber, tenaga ahli dll.)	1. Improving the Service of Edu-tourism Companion Faculty of Animal Husbandry, Hasanuddin University 2. Presenter at The 3rd International Conference of Enviroment and Sustainable Development