

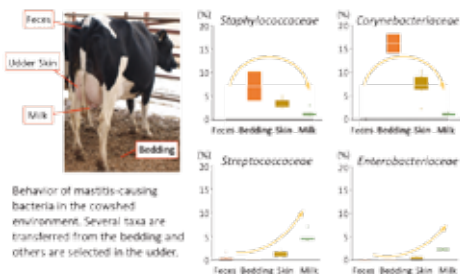


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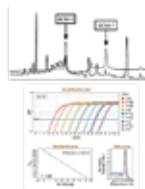
Health promotion and disease prevention of animals

Mastitis, an inflammation of the mammary gland regarded as the most important disease affecting dairy herds, is triggered by pathogens derived from infectious and environmental bacteria. Milk microbiota is shown to be influenced by the microbiota present on teat skin, bedding, feed, and in the surrounding air. Region, season, and hygiene of the milking practices also influence the microbiota. We characterize the microbiota of the gut, milk, and cowshed environment to gain insights into improved cow management and mastitis prevention.



Integrating genomic approaches to upgrade the value of dairy products

Various projects have been progressed to improve the productivity of dairy cows and the value of dairy products using genomic approaches. Hiruzen, a northern region of Okayama Prefecture, is a well-known area where dairy farming performs with Jersey cows. Jersey milk has a rich taste and high-fat content, making it suitable for the production of dairy products such as butter, cheese, and yogurt. β -casein is one of six milk proteins produced by the CSN2 gene, and the variants can be classified into A1 and A2. We identify the CSN2 gene variants and evaluate the quality and function of A1 and A2 milk products using rodent models.



SNP analysis of CSN2 gene

