

Chapter 5

Product Innovation and Launch



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Abstract This chapter provides an in-depth and systematic discussion on product development, innovation, and product launch strategies in the food industry, highlighting their worth in translating scientific research into marketable food products. The chapter traces the evolution of food product development from traditional practices to modern, structured innovation frameworks, emphasizing the increasing complexity of contemporary food systems. It critically examines established new product development (NPD) models and explains their relevance to food technology, with particular attention to consumer-driven innovation, regulatory compliance, quality assurance, and economic feasibility. Key stages of the product development process, including idea generation, concept screening, formulation, process optimization, sensory evaluation, shelf-life valuation, packaging, and commercialization, are discussed in detail. The chapter incorporates decision-making criteria, flowcharts, and descriptive tables to illustrate the sequential yet iterative nature of food product development. Furthermore, the importance of food safety management systems, quality control measures, and sustainability considerations is highlighted as an essential component of successful product innovation. By integrating technological, managerial, and market-oriented perspectives, this chapter bridges the gap between experimental research and industrial application, indicating how planned product development approaches enhance innovation efficiency, reduce failure risks, and contribute to sustainable growth in the food sector.

Keywords Product development · Innovation · NPD models · Formulation · Quality assurance · Sensory evaluation · Commercialization · Sustainability

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