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PSEUDOMONAS SPP. CONTAMINATION ISSUES IN THE FOOD INDUSTRY

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The presence of spoilage microorganisms in the food industry causes waste and losses, especially in the processing of perishable products such as milk, meat, fruit and vegetables. Bacteria of the _Pseudomonas_ genus represent a significant challenge, since they are able to proliferate in refrigerated environments and produce hydrolytic enzymes, compromising food quality and production yields. In addition, they can synthesize fluorescent pigments and volatile compounds that cause visible changes and unpleasant odors in food. The presence of these bacteria is aggravated by their ability to form biofilms, which makes it difficult to remove them from equipment surfaces, increasing the persistence of these microorganisms on the production line. In addition to waste and loss of yield, the presence of _Pseudomonas_ spp. in the food industry can lead to higher product prices and, in the long term, put companies reputations at risk. Therefore, measures for the rapid screening and control of these bacteria are necessary, especially the development and feasibility of rapid, easy and low-cost detection methods. Early detection of contamination sites allows assertive decisions to be made to avoid product contamination. These measures are essential to ensure the quality and safety of food and minimize economic losses caused by the presence of these bacteria in the industry.

Referências bibliográficas:

SHAO, L. et al. Advances in understanding the predominance, phenotypes, and mechanisms of bacteria related to meat spoilage. **Trends in Food Science & Technology**, v. 118, p. 822-832, 2021.

MACHADO, S. G. et al. *Pseudomonas* spp. and *Serratia liquefaciens* as predominant spoilers in cold raw milk. **Journal of food science**, v. 80, n. 8, p. M1842-M1849, 2015.

BELLASSI, P. et al. A milk foodomics investigation into the effect of *Pseudomonas fluorescens* growth under cold chain conditions. **Foods**, v. 10, n. 6, p. 1173, 2021.

THOMASSEN, G. M. B. et al. High disinfectant tolerance in *Pseudomonas* spp. biofilm aids the survival of Listeria monocytogenes. **Microorganisms**, v. 11, n. 6, p. 1414, 2023.

BEN MHENNI, Nesrine et al. Prevalence and Antibiotic Resistance Phenotypes of *Pseudomonas* spp. in Fresh Fish Fillets. **Foods**, v. 12, n. 5, p. 950, 202.

NASERI, M. et al. Rapid detection of gram-positive and-negative bacteria in water samples using mannan-binding lectin-based visual biosensor. **ACS sensors**, v. 7, n. 4, p. 951-959, 2022.

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