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Heat treatment induced bacterial changes in irrigation ...

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A new heat treatment for recycled irrigation water using 48 °C for 24 h to inactivate Phytophthora and bacterial plant pathogens is estimated to reduce fuel cost and environmental footprint by more than 50 % compared to current protocol (95 °C for 30 s). The objective of this study was to determine the impact of this new heat treatment temperature regime on bacterial community structure in ...

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Induction of DNA methyltransferase genes in Helicoverpa ...

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Pressure- vs. heat-induced bacterial stress in cooked ...

Moreover, our results show this change could be attenuated by heat shock treatment. Hsps belong to multigene families and are universally induced in all living cells, organisms, and cultured cells by heat shock treatment as well as by many other chemical or physical stresses (Tissieres et al 1974; Lindquist 1986; Lindquist and Craig 1988).

Heat-Induced Changes in Milk | SpringerLink

Before heat-treatment (0 h), the number of the mesophilic bacteria was 1000 times higher than that of the thermophilic bacteria. During the initial 1 h heat-treatment, CFU at 28 °C decreased from 4.6×10^6 to 1.2×10^5 , indicating that nearly 98% of the mesophilic bacteria died, leaving 2% of thermophilic bacteria.

9 Heat-induced changes in milk 9.1 Introduction In modern dairy technology, milk is almost always subjected to a heat treatment; typical examples are: Thermization Pasteurization e.g. 65°C x 15 s LTLT (low temperature, long time) 63°C x 30 min HTST (high temperature, short time) 72°C x 15 s

The ability to withstand heat is fundamental to an organism's ecology, and variation in heat tolerance affects the geographic range of species. Many insects have obligate relationships with heat-sensitive bacterial symbionts, raising the question of whether variation in heat sensitivity among symbionts underlies variation in heat sensitivity among their host species.

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Heat Treatment Induced Bacterial Changes

473 The Effect of Milk Heat Treatment on the Growth Characteristics of Lactic Acid Bacteria I. Stulova 1, 2 , N. Kabanova 1, 2, T. Kriščiunaite 1, 2, T.-M. Laht 1, 2 and R. Vilu 1,2 1 Tallinn University of Technology, Ehitajate tee 5, 19086, Tallinn, Estonia 2 Competence Center of Food and Fermentation Technologies (CCFFT), Akadeemia tee 15B, 12618, Tallinn, Estonia; e-mails: irina.stulova ...

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An Overview of Heat Treatment Methods & Their Benefits ...

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