Food Antimicrobials — An Introduction. Methods for Activity Assay and Evaluation of Results. Sodium Benzoate and Benzoic Acid. Sorbic Acid and Sorbates. Organic Acids. Sulfur Dioxide and Sulfites. Nitrite. Nisin. Natamycin. Lauric Arginate. Medium-Chain Fatty Acids and Esters. Parabens. Dimethyl Dicarbonate and Diethyl Dicarbonate. Lysozyme. Bacteriocins with Potential for Use in Foods. Bacteriophages. Naturally Occurring Compounds — Plant Sources. Naturally Occurring Compounds — Animal Sources. Sanitizers. Processing Aids as Antimicrobials. Delivery Systems. Update on Hurdle Technology Approaches to Food Preservation. Practical Application of Food Antimicrobials. Mechanisms of Action, Resistance, and Stress Adaptation.