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Antimicrobail properties of tomato, garlic and onion against common food-borne pathogens

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Most foods and cooking practices have incorporated the use of spices and other food additives for flavor and tomato for sour taste and also to reduce the activity of spoilage micro organisms. Tomato is also used in the preparation of several dishes. Spices and herbs have been used for thousands of centuries by many cultures to enhance the flavor and aroma of foods. Scientific experiments have documented the antimicrobial properties of some spices, herbs and their components. Recent studies have shown that many of these ingredients possess antimicrobial properties against common food spoilage microorganisms. The objective of this study was to test the antimicrobial properties of tomato, garlic and onion against the common food spoilage bacteria namely *Staphyllococcus aureus, Bacillus cereus* and *E.coli*. The antimicrobial activity of each plant material was studied by well diffusion method. Garlic showed the greatest inhibitory activity against all the bacteria tested. Onion and tomato showed a slight inhibitory activity against *Bacillus cereus,* Onion demonstrated the greater inhibitory effect than Tomato against *Bacillus cereus.* Onion and Tomato showed no inhibitory activity against *E.coli* and *Staphyllococcus aureus.* It is important to note that fat, protein, water and salt contents of food influence microbial resistance. Therefore higher levels of spices may be necessary to inhibit growth in food than in culture media.

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