



All Natural, Antimicrobial Edible Food Film

Food-borne pathogens are of great concern to the food industry and the general public. A simple, economical method of inhibiting microbial growth and extending the shelf life of food without imparting undesirable traits to the food represents an opportunity for food packaging interests.

Researchers at the University of Arkansas, Division of Agriculture have invented several protein-based films that can serve as carriers for certain organic acids which inhibit the growth of the three major food-borne bacteria: *Listeria monocytogenes*, *Salmonella*, and *E. coli*. In addition, the film can be a vehicle for antioxidants, nutraceuticals, flavors, colors and other functional ingredients. Anticipated applications include fruits and vegetables, meats, seafood, frozen snacks and pizza, cereals, nuts and more.

Advantages:

- Provides antimicrobial barrier and naturally inhibits growth of certain food-borne pathogens.
- Extends shelf life and food quality by minimizing lipid oxidation and rancidity.
- Versatile applications including wrapping, dipping and spraying
- Hydrophobic/ hydrophilic nature of various films lends properties for a wide variety of products.
- The films have limited glycerol content, have no effect on flavor and are biodegradable.

The invention is patented (US Patent no. 7,160,580) and available. The University of Arkansas invites inquiries from all food manufacturers and food packaging interests. Licensing opportunities and further collaboration.

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