Packaging for Irradiated Fresh Produce

Vanee Komolprasert

U.S. Food and Drug Administration

Ionizing radiation is an effective means for controlling foodborne pathogens and is applicable to fresh produce. The U.S. Food and Drug Administration permits the safe use of ionizing radiation for control of food-borne pathogens and extension of shelf-life in fresh iceberg lettuce and fresh spinach using energies not to exceed 4.0 kGy. However, the lack of suitable packaging materials is likely a factor that delays the commercialization of irradiated prepackaged fresh produce. Additionally, the irradiated foods are ready for shipping to the market immediately after irradiation. However, ionizing radiation can induce chemical changes to the packaging materials, which may result in the formation of breakdown products that may readily migrate into foods. Therefore, the packaging materials holding food being irradiated are required to undergo premarket authorization prior to use. This presentation discusses the Agency's current thinking in evaluating the suitability of packaging materials for use during ionizing radiation of prepackaged fresh produce.